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INDIAN PSYCHOLOGY



Person of the Issue
Melanie Klein (1882-1960)

Editor in Chief:
Prof. Suresh M. Makvana, PhD
Editor:
Ankit P. Patel

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INDIAN PSYCHOLOGY

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Editor in Chief

Prof. Suresh M. Makvana, PhD

Editor

Ankit P. Patel

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Message from Editors

We have been committed to make our “*Author Freedom Policy*” better due to response given by our researchers. We have launched “***Gold Open Access System***” before some days, which have gained good feedback by researchers. Now, every title will get its own URL which would be included by Abstract, Keywords, DIP (Digital Identifier Passport) etc. The main benefit of the URL is that, researcher can share and show it in his profile, CV, resume etc.

We shall present nomination of “**Paper of the Year**” award within short time. IJIP plans *Paper of the Year award* every year to inspire its researchers. After nomination, it would be lived at the website. Then it would be opened for voting. It would be voted by IJIP website visitors. That nominee would be awarded who would get majority of votes. In short the point is website visitors make him winner of the award. You can get more information regarding this matter from IJIP official website (www.ijip.in/index.php/award.html)

Year 2016 is the year of new hopes, new tries, and new dreams to be realized into reality. We pray to God fulfill all your wishes and dreams. We thank here all the researchers and friends joined with us.

We experience here feeling of joy while presenting first issue of 2016. We thank you again researchers who have presented their articles in this issue.

Happy New Year...

Dr. Suresh Makvana¹
(Editor in Chief)

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Person of the Issue: Melanie Klein (1882-1960)

Ankit Patel^{1*}

Born	30 March 1882 Vienna, Austria-Hungary
Died	September 22, 1960 London, United Kingdom
Citizenship	Austrian
Known for	Devising therapeutic techniques for children Coining the term 'reparation' Klein's theory splitting Projective identification
Influences	Sigmund Freud Karl Abraham
Influenced	Herbert Rosenfeld Otto F. Kernberg Jacques Lacan Cornelius Castoriadis Donald Meltzer



Melanie Klein was born on March 30, 1882, in Vienna, Austria. In 1903, she married Arthur Klein and relocated to Budapest. They had three children, born in 1904, 1907, and 1914.

Klein's first personal experience in the field of psychoanalysis began when she sought treatment for herself after her mother died in 1914. Earlier in her youth, Klein's siblings died: her brother died when she was 20, and her sister died when Klein was 4 years old. Klein was in treatment with Sandor Ferenczi between 1914 and 1917.

Klein was a pioneer in the treatment of children. She was among the first to use psychoanalysis on children and implemented several never-before implemented techniques and tools. She often used play and toys to help children discuss psychological issues.

Klein's approach to psychoanalysis conflicted with much of Sigmund Freud's work. Freud drew his ideas on child development from the recollections of his adult patients, but Klein worked directly with children and toddlers, giving her unique insight into the child development process. She defied Freud, arguing that the superego is actually present the moment a child is born,

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preceding the Oedipal complex. Klein also claimed that a primitive form of the Oedipal complex was present much earlier in development than Freud claimed, as a child becomes preoccupied with overwhelming parental authority.

Her early work led her to certain clinical discoveries. For instance, she saw that the splitting appears very early as a mechanism in the child's mind, and that the mechanisms of projection and introjections accompanying the splitting result in the creation of a very complex internal world, even in a very small child. She saw the importance of early part-object relationships, already noticed by Abraham but never deeply investigated. As I have said, she had described both an earlier concept of the Oedipus complex and the roots of an early, very savage, superego connected with part-object introjections. But it was only with her description of the depressive position that Klein's early discoveries could be brought together to give a picture of the child's mental development.

However, there was yet another discovery to come, in the last years of her life. This is the discovery of the crucial importance of primitive envy, and this has become extremely controversial, even amongst some who agreed with Klein's theory of the two positions. It seems that the thought that envy could be early and primary, and directed from the start at the maternal breast, under the aegis of the death instinct, was an idea hard to tolerate. Envy is very connected with the pathology of the paranoid-schizoid position. Hatred attacks the bad object, but envy is directed at the ideal object, and interferes with the original splitting which enables the infant to have an ideal object, which is the basis of what in the depressive position becomes a more integrated good-and-bad object. Since it is the ideal object that is attacked in envy, it leads to a constant confusion between what is good and what is bad, and endless, often psychotic, confessional states. In the depressive position, excessive envy makes reparation very difficult, both because of the magnitude of the guilt, and because the object, once repaired, becomes again an object of envious attacks.

Since Klein, a great deal of work has been done by her pupils and followers on the transition between the paranoid and the depressive position, and the important role that is played in its pathology by the factor of envy.

TIMELINE

1882

- Melanie Reizes is born on 30th March at Tiefer Graben 8, Vienna to Moriz (aged 54) and Libussa Reizes (née Deutsch, aged thirty). Her father Moriz comes from an orthodox Jewish family from Lemberg, Galicia (now Lvov, Ukraine), and her mother from Warbotz, Slovakia. Moriz trained as a doctor against his very conservative family's wishes; Libussa is an intelligent, attractive young woman.
- Melanie is the last of four children, joining six-year-old Emilie, five-year-old Emmanuel, and four-year-old Sidonie. The family moved to Vienna from Deutschkreutz, Hungary (now Burgenland, Austria) sometime between 1878 and 1882.

1885

- When Melanie is three years old, Sigmund Freud, now 29, is in Paris studying hysteria and hypnosis with famous neurologist Jean-Martin Charcot.

Person of the Issue: Melanie Klein (1882-1960)

1886

- Melanie's closest sister Sidonie dies of scrofula (tuberculous cervical lymphadenitis) at the age of eight. Melanie is four years old.
- Freud leaves Paris and returns to Vienna.

1887

- The Reizes family inherits a considerable sum of money on the death of Moriz's father. Melanie now five years old, the family moves from their second home in Vienna, a shabby fifth-floor apartment in Borsegasse, to a much larger, more elegant apartment in middle-class suburb Martinstrasse.

1891

- When Melanie is nine years old, 35-year-old Sigmund Freud moves to Berggasse 19, Vienna, his home and consulting rooms for the next 47 years.

1895

- In the same year as his last child Anna is born, Freud publishes his seminal *Studies on Hysteria*.

1898

- At the age of 16, Melanie already has her sights set on studying at the gymnasium. She has long wanted to study medicine, now specifically psychiatric medicine. This year she passes her entrance exams.

1899

- At the age of 17, Melanie meets her future husband, Arthur Stevan Klein, four years her elder and a second cousin. Klein is studying to be a chemical engineer in Zurich. He proposes to Melanie soon after their first meeting; she accepts. The engagement spells the end of Melanie's medical ambitions.

1900

- Melanie's father, Moriz Reizes, dies on 6th April at the age of 72. On 25th December, her eldest sister Emilie marries Leo Pick, a young doctor.
- Freud publishes his fundamental work, *The Interpretation of Dreams*. Freud is to maintain throughout his life that it is his most important work of all. It forms the keystone of psychoanalytic thought and practice.

1901

- Melanie spends the summer with the Kleins in Rosenberg (in Slovakian Hungary, now northern Slovakia) while Arthur is in America.
- Freud publishes *On Dreams*, a text which will critically influence Klein's psychoanalytic thinking.
- Otto, Melanie's first nephew, is born to Emilie Pick on 16th October.
- Melanie returns home from Rosenberg around Christmas 1901.

1902

- On 1st December 1902 a second sibling, Melanie's adored older brother Emmanuel, dies in Genoa of heart failure, at the age of 25. His death comes after several years of aimless and indigent travelling around the Mediterranean. He has very probably been addicted to morphine and cocaine for some time, in addition to suffering from tuberculosis.

1903

- Still in mourning for her brother, Melanie Reizes marries Arthur Klein on 31st March, the day after her 21st birthday. They set up their home in Rosenberg.
- In May Melanie finds out she is pregnant.

Person of the Issue: Melanie Klein (1882-1960)

1904

- Klein's first child, Melitta, is born on 19th January.

1905

- Melanie, Arthur and one-year-old Melitta make a trip to the Adriatic coast, visiting a number of places including Trieste and Venice.
- Freud publishes Three Essays on the Theory of Sexuality.

1906

- In the spring, Melanie accompanies Arthur to an engineering congress in Rome.
- After four years of persevering with her friend Irma Schonfeld, Melanie finally sees the publication of a collection of Emmanuel's writing.

1907

- On 2nd March Melanie gives birth to her second child and first son, Hans, after suffering a deep depression during pregnancy.
- Late in 1907 the Kleins move to Krappitz, a small provincial town in upper Silesia (now Krapkowice, Poland), where Arthur has been appointed director of a paper mill. Libussa moves in soon afterward.

1908

- Melanie becomes increasingly anxious and depressed, clearly very unhappy in her married life in this small, friendless town. She is often away, visiting friends and family, and making trips to Budapest and Abbazia. She receives treatment – such as carbonic acid baths – for her “nerves”. As a result she spends long periods of time apart from her young children, not a little encouraged by her mother Libussa in a series of strange, guilt-inducing and interfering letters.
- In this year Freud meets Hungarian psychoanalyst Sándor Ferenczi. The two men begin an important professional and personal relationship, recorded in more than 1,200 letters over their careers. Ferenczi is to have an enormous effect on Klein, as her analyst, supporter and friend.

1909

- In May, now severely depressed, Melanie visits a sanatorium in Chur, an alpine town in eastern Switzerland. In June she moves a little further south, to St Moritz, and is experiencing problems with her bladder. In a letter from her mother, there is a suggestion that Melanie might be afraid that she is pregnant, something that she dreads.
- In November the Kleins, with Libussa in tow, move to Svabhegy, a suburb of Budapest.
- Freud publishes his study of five-year-old 'Little Hans,' the first such analytic observation of a child. The analysis is carried out by the boy's father, as directed by Freud.

1910

- In the new scenery of Budapest, Melanie spends much of her time with Jolanthe Vágó, Arthur's sister, and Klara, Jolanthe's divorced sister-in-law. She is very close to these two women, especially Klara.
- Melanie spends the summer with Klara in Rügen, a resort to the north of Berlin on the Baltic Sea.
- Karl Abraham, close friend and colleague of Freud, establishes the Berlin Psychoanalytic Society. Abraham is later to analyse Klein, and to become a deeply important figure in her psychoanalytic thinking and emotional life.

1911

- In August the Kleins move to Rozsdamb, a more affluent area of Budapest.

Person of the Issue: Melanie Klein (1882-1960)

- Again Melanie spends her summer holiday in Rügen with Klara.

1912

- Melanie writes to her mother, who is staying temporarily in Vienna, that she is feeling better, in fact "quite healthy." She refers to a "treatment" she has been having, though she does not refer to its nature. It is likely psychological, perhaps even psychoanalytical.

1913

- Around Christmas 1913, Klein finds she is again pregnant.

1914

- After another deeply depressed pregnancy, Klein gives birth to her third and last child, Erich, on 1st July. Two weeks later, on the 28th July 1914, the First World War breaks out. Both Arthur Klein and Melanie's brother-in-law Leo Pick are subsequently called up.
- Klein begins analysis with Sándor Ferenczi, a Hungarian psychoanalyst intimate with Freud and instrumental in the growth of psychoanalysis. For the first time in Klein's life she is able to talk about her emotional experiences, and to be listened to by a highly intelligent, attentive, perceptive audience of one. This encounter with Ferenczi is nothing less than a watershed in her life.
- At some point in this year Klein reads Sigmund Freud's *On Dreams* ('Über den Traum,' 1901). She is immediately filled with huge excitement about the insights and possibilities revealed by Freud, and becomes devoted to psychoanalysis.
- In October Ferenczi is called up to serve as a doctor to the Hungarian Hussars, though he continues to be analysed by Freud by post. He carries out some analyses himself, both in the army and on return visits to Budapest.
- In late October the Kleins take Libussa to be x-rayed, following a severe loss of weight. Cancer is ruled out by the doctor. However, she rapidly develops bronchitis, and on 6th November Melanie Klein's mother is dead.

1916

- Arthur Klein is invalided back home with a leg wound. Ferenczi also returns to Budapest, having been transferred to a neurological hospital.

1917

- Freud's famous essay, 'Mourning and Melancholia' is published. Klein will later develop her radical ideas about manic-depressive states, as well as her seminal concept of the depressive position, out of Freud's account of aggression and guilt as central to the experience of the melancholic patient.

1918

- On 28th and 29th September, Melanie Klein attends the Fifth Psychoanalytic Congress at the Hungarian Academy of Sciences in Budapest. She hears Freud read his paper, 'Lines of Advance in Psychoanalytic Therapy,' which further fuels her fascination with psychoanalysis. This is almost certainly the first time Klein hears Freud read his work in person, and will be one of the only times. For Klein this is an extraordinary moment, as she comes face to face with the brilliant and deeply revered founder of psychoanalysis.
- Toward the end of the year the Austro-Hungarian Empire dissolves as its monarchy collapses. The First World War finally ends on the 11th November 1918, after over four years of fighting and millions of lives lost.

Person of the Issue: Melanie Klein (1882-1960)

1919

- In July Klein presents her study of her five-year-old son Erich to the Hungarian Psychoanalytic Society; it is her first study of a child. She is soon afterward awarded membership.
- Arthur Klein leaves Budapest and his family for Sweden in autumn 1919, as the anti-Semitic White Terror takes hold of Hungary. The Hungarian Psychoanalytic movement is all but destroyed by this ferocious counterrevolutionary anti-Semitism. Melanie also leaves Budapest, taking her three children to stay with Arthur's parents in Rosenberg. Besides the political turmoil, the Kleins' marriage is not working, and it is clear they are increasingly unhappy living together.

1920

- In September Klein attends the first International Congress since the war, held in The Hague. She meets Joan Riviere for the first time.
- Freud publishes *Beyond the Pleasure Principle*, in which he introduces the bold new idea of the 'death instinct.' This concept, controversial from its incipience, is to play a significant part in the development of Klein's theory, particularly with relation to sadism and ego-splitting in the young child.

1921

- At the beginning of 1921 Klein leaves her in-laws in Rosenberg and moves to Berlin. Other psychoanalysts have also left Hungary due to the intensifying anti-Semitic climate, including Sándor Rádo, Alexander, Schott and Balint.
- After a few weeks spent in a pension in Grunerwald, Klein moves to Cunostrasse, a drab and uninspiring area. She has Erich with her, now six years old. Melitta, aged 17, is finishing her studies in Budapest, and Hans, aged 14, is at boarding school.

1922

- Klein delivers another paper on early analysis at the 1922 International Congress. On the back of this and her paper of the previous year, she is made an Associate Member of the Berlin Society.

1923

- After being made a full member of the Berlin Psychoanalytic Society in February, Klein embarks upon her first child analysis. This marks the start of a bold new approach to analytic treatment and theory, and the start of Klein's career. This is only strengthened when Klein's paper, 'The Development of a Child,' is published by Ernest Jones in the *International Journal of Psychoanalysis*.
- The child Klein names 'Rita' in her notes enters analysis with her; she is only two and a half years old. In November Abraham, at that time supervising Klein's work, writes to Freud:
- "In the last few months Mrs Klein has skilfully conducted the psychoanalysis of a three-year-old with good therapeutic results. The child presented a true picture of the basic depression that I postulated in close combination with oral erotism. The case offers amazing insights into instinctual life." (*A Psycho-Analytic Dialogue, The Letters of Sigmund Freud and Karl Abraham, 1906-27* [Hogarth Press, 1965], p. 339)
- Meanwhile, in her personal life, Klein and her husband Arthur attempt reconciliation, moving into a large house built by Arthur on his return from Sweden, Auf dem Grat 19, Dahlem.

1924

- Eager to learn from one of the great pioneers of psychoanalysis, Klein asks Abraham to analyse her. She manages to persuade him, despite his reservations about analysing a Berlin colleague. At the beginning of 1924 her treatment begins.
- After several months of trying to repair their marriage, relations between Melanie and Arthur fail to improve. Melanie leaves her husband for good in April, shortly after her daughter Melitta's marriage to Walter Schmideberg, a Viennese doctor and family friend of the Freuds.
- Following this final breakup of her marriage, Klein moves into a pension at Augbwißerstrasse 17, where she struggles to keep custody of Erich against Arthur's opposition. Six months into Klein's new analysis, Alix Strachey arrives from England. She is to become a very important catalyst in the development of Klein's career.
- Klein begins several important analyses of children, notably those she refers to as 'Peter,' 'Ruth,' 'Trude,' and 'Erna' in her writings. An important paper based on these cases is presented to the Berlin Society on 12th December.

1925

- A letter from Alix Strachey to her husband, outlining Klein's 1924 Berlin Society paper, stimulates great interest when read to the British Society on 7th January 1925. Klein subsequently plans to give a series of lectures in London, with the enthusiastic encouragement of Ernest Jones. The Stracheys are greatly supportive of Klein's visit, translating papers, tutoring her English, and preparing the ground in the British Society.
- During the spring Klein meets Chezel Zvi Kloetzel, a married man and father of one, at her dance class. They begin what, at least for Klein, is a deeply affecting love affair.
- In July Klein goes to London for her lecture series, which is held at the house of Karin and Adrian Stephen (brother of Virginia Woolf) in Gordon Square. She gives two lectures per week for three weeks, to a fascinated audience. Klein meets Susan Isaacs, thus beginning an important and enduring professional and personal relationship.
- Alongside these exciting developments Klein also suffers a great loss. Abraham falls ill in May, deteriorating until he dies on Christmas Day. Klein has been in analysis with him for only a year and a half. She later describes the termination of her analysis and Abraham's death as 'very painful.'

1926

- The London Clinic for Psychoanalysis opens on 6th May, Freud's 70th birthday.
- In September, at the invitation of Ernest Jones, Klein moves to London. She breaks off with Kloetzel (though he is to visit her several times over the next few years). Klein begins analysis of Jones' wife and two children between 15th September and 4th October.
- On 17th November Klein gives a paper before the British Psychoanalytic Society on five-year-old 'Peter,' with reference to the castration complex and anal-sadistic phantasy.
- Klein's son Erich joins her on 27th December, three months after her arrival. Klein now has six patients in addition to the Jones family.

1927

- On 19th March Anna Freud addresses the Berlin Society on the subject of child analytic technique. Her presentation is a barely disguised attack on Melanie Klein's approach to psychoanalysis. In response, Ernest Jones organises a symposium for the British Society

Person of the Issue: Melanie Klein (1882-1960)

on the same subject. Sigmund Freud is unhappy with what he sees as an attack on his daughter and, perhaps by extension, himself.

- At the beginning of September Klein attends the Tenth International Congress, held in Innsbruck. She delivers her paper, 'Early Stages of the Oedipus Complex,' her most radical conceptual offering to date.
- Klein is elected a member of the British Psychoanalytical Society on 2nd October.

1928

- Melitta Schmideberg, Klein's eldest child and only daughter, comes to London after graduating from university in Berlin. Like her mother she is now pursuing a career in psychoanalysis, and by 1930 she is a member of the British Society. She moves in with her mother and brother Erich, while her husband Walter remains in Germany for a further four years.

1929

- Klein begins analysis of 'Dick,' a four-year-old boy, seemingly struggling with schizophrenia. His condition has since been re-described as infantile autism. This analysis and its ensuing published paper forms a key moment in Klein's development of her ideas about early psychosis and its relation to aggression and guilt.

1930

- On 5th February Klein presents a paper, 'The Importance of Symbol-Formation in the Development of the Ego' to the British Society. It forms a hugely important stage in her psychoanalytic thinking. In this seminal paper, Klein asserts that the child's capacity for symbol formation, and more broadly for the formulation of thought, are vital elements in the healthy development of the ego. This paper is truly innovative, and opened the way to a better understanding of psychotic states.

1931

- Klein takes on her first training analysand, Dr. W. Clifford M. Scott, a medical graduate from Toronto, Canada.

1932

- Klein's first major theoretical work, *The Psychoanalysis of Children*, is published simultaneously in English, by Hogarth Press (set up by Virginia and Leonard Woolf), and in German, by the Internationaler Psychoanalytischer Verlag. In it she lays the foundations for her later innovation of the paranoid-schizoid and depressive positions.

1933

- On 22nd May Sándor Ferenczi dies of pernicious anaemia, at the age of 59.
- Klein moves to 42 Clifton Hill, St. John's Wood. Paula Heimann, fleeing Nazi Germany, moves to London, and becomes Klein's secretary. She subsequently enters analysis with Klein.
- Melitta is elected member of the Institute of Psychoanalysis on 18th October. Previously an exponent of her mother's theoretical position, Melitta becomes increasingly antagonistic toward her, mounting regular, unsparing attacks against her ideas and method in Society meetings.
- Klotzel moves to Palestine at the end of the year, as anti-Semitism rages ever more violently through Europe. Klein will never see him again.

1934

- At the beginning of the year Klein starts seeing Sylvia Payne once a week, for treatment of a bout of intense depression.

Person of the Issue: Melanie Klein (1882-1960)

- Melitta begins analysis with Edward Glover, after having been previously analysed by Ella Sharpe. They become close allies against Klein in the on-going British Society infighting.
- In April, Melanie's eldest son Hans dies when a path crumbles under him as he hikes through the Tatra Mountains. He is 27. Melanie does not attend the funeral, held in Budapest, apparently too devastated to make the journey.
- Klein reads the first version of her seminal paper, 'The Psychogenesis of Manic-Depressive States' at the Lucerne Congress in August.

1935

- On 16th January Klein reads a reworked version of her 1934 Congress paper, 'A Contribution to the Psychogenesis of Manic-Depressive States,' to the British Society. The paper explains her radical, brilliant new concept, the depressive position.
- Donald Winnicott, a paediatrician and recently qualified psychoanalyst, begins analysis of Klein's youngest child Erich, at her request.
- In Germany on 15th September, the Nuremberg Laws are passed at the annual Nazi party rally. Jews are stripped of their citizenship, the right to hold influential professional positions, and the right to marry 'Aryans.'

1936

- In February Klein delivers her paper, 'Weaning,' as part of a lecture series open to the public at Caxton Hall. It will later be published as part of *Love, Guilt and Reparation and Other Works 1921-1945*.

1937

- On 19th March Melitta Schmideberg reads her paper, 'After the Analysis – Some Phantasies of Patients,' a searing attack on Kleinian analytic technique and theory.
- Klein goes into hospital in July, for an operation on her gall bladder. She writes 'Observations Following an Operation' afterward, detailing her emotional reactions to anaesthetic, surgery, and the return to childlike dependency.
- She spends August recuperating in Devon with Erich and his new wife, Judy.
- In September Klein takes a rare holiday in Italy.
- Klein and Joan Riviere jointly present 'Love, Guilt and Reparation,' based on a previous public lecture.
- Read Klein's 'Observations after an Operation'...

1938

- Emilie and Leo Pick, Klein's sister and brother-in-law, arrive in England as refugees from Nazi-annexed Vienna. They move into a flat around the corner from Klein.
- Sigmund and Anna Freud flee Vienna after the Nazis invade Austria in March. They arrive in London on 6th June. They are just a couple of a flood of refugee psychoanalysts fleeing Nazi Germany and Austria. The British Society is thus changed out of recognition.
- On the night of 9th-10th November, Nazi supporters and SA stormtroopers vandalise and destroy Jewish shops and synagogues across Germany and Austria, killing, beating and arresting Jews. This horrific pogrom will become known as Kristallnacht ('Night of Broken Glass').

Person of the Issue: Melanie Klein (1882-1960)

1939

- Early in the year the Internal Object (I.O.) Group is set up, at the suggestion of Eva Rosenfeld and Susan Isaacs, as a regular opportunity for the Kleinians to discuss and formulate their ideas for presentation to their opponents.
- On 8th March the British Psychoanalytical Society celebrates its 25th birthday at the Savoy (taking 1914 rather than 1919 as the date of inception, despite the abortive nature of the first attempt). Virginia and Leonard Woolf are among the guests, and Klein meets them for the first time.
- Arthur Klein dies in Sion, Switzerland, at the age of 61.
- On 3rd September Britain declares war against Germany.
- Klein moves to Cambridge temporarily, one of many fleeing the capital for fear of air raids.
- On 23rd September, three weeks after the outbreak of the Second World War, Sigmund Freud dies at the age of 83 after years of suffering with cancer of the jaw.
- Klein re-works 'Mourning and Its Relation to Manic-Depressive States' over the winter, a paper originally given at the 1938 Paris Congress.

1940

- Klein's sister Emilie Pick dies in London in May, of lung cancer. Klein is not with her.
- At the end of June Klein leaves London for Pitlochry in Scotland, at the request of 'Dick's' parents. Meanwhile, in London, the Battle of Britain approaches, making the capital highly dangerous. She returns to London for Christmas, missing her grandson Michael and her work there.
- Edward Glover publishes An Investigation of the Technique of Psychoanalysis, a barely disguised attack on Klein and Kleinian thought.

1941

- By the new year Klein has four patients in Scotland, Dick and his brother, and two doctors. During her time in Pitlochry she keeps up a regular correspondence with Donald Winnicott, by now a close friend and ally.
- At the end of April Klein starts analysis of ten-year-old 'Richard,' whose "unusual" set of psychical difficulties prove rich food for thought. She is soon eager to write a book dedicated to this particular case.
- At the beginning of September Klein leaves Pitlochry and returns home to London.

1942

- The first of the British Society's Extraordinary Meetings takes place on 25th February, after months and years of increasing discord and infighting among its members. They are heated and often venomously personal battles between the opposing groups in the Society – the Kleinians and Viennese Freudians – and they carry on until June. In meetings Anna Freud and Edward Glover attack Klein's legitimacy as a psychoanalyst, while Melitta Schmideberg attacks her mother with a seemingly blind rage, more personal than theoretical. It looks as though the Society may not survive this deeply divisive war of ideas and personalities.
- The first of the Controversial Discussions is held on 21st October. They are highly charged debates about the conflicting psychoanalytic theories threatening to break the Society down the middle. Klein and Anna Freud are the central opponents in the struggle. During this period Kleinian theory will be criticized vehemently, and even accused of not being psychoanalytic.

1943

- Susan Isaacs' paper, 'The Nature and Function of Phantasy' (later published in *Developments in Psychoanalysis*) is distributed to members of the Society to be discussed on the 27th January as part of the Controversial Discussions. It is a key paper in the history of psychoanalysis, demonstrating Klein's concept of infantile phantasy as intimately related to, and sprung from, classical Freudian thought and therefore resolutely psychoanalytic. The paper forms the focus of discussion at every meeting until 19th May.

1944

- After a meeting on the 24th January, Edward Glover resigns from the British Society, declaring it no longer 'Freudian,' that is, psychoanalytic.
- On 16th February Klein takes part in the Discussions for the first time in person. She delivers the paper forming the focus of the last Controversial Discussion on 1st March, 'The Emotional Life of the Infant.'
- Hanna Segal enters analysis with Klein, around the same time as Herbert Rosenfeld. Both Segal and Rosenfeld will go on to develop and expand Kleinian theory, as they push the limits of psychoanalysis in their work with borderline-psychotic and psychotic patients.

1945

- Melitta Schmideberg leaves the UK, now separated from her husband Walter, and moves to New York. She will live there until 1961, working with adolescent delinquents.
- Klein spends August on a farm with her daughter-in-law Judy and grandchildren Michael and Diana.

1946

- On 4th December Klein gives her paper, 'Notes on Some Schizoid Mechanisms' to the British Society. This is one of the most important works of Klein's career, and a pivotal moment in psychoanalytic thought, as she details the concepts of ego-splitting and projective identification.
- After much debate within the British Society, the 'A' and 'B' groups, and what becomes known as the 'Middle Group', are at last established as an urgent means of resolving the on-going and irreconcilable differences between the Anna Freudians and Kleinians. The bitter arguments that have raged through the Society for years are now at least partly assuaged, and the Society looks like it will survive.

1947

- John Rickman, a British psychoanalyst who has been in analysis with Freud, Ferenczi and Klein, is elected president of the British Society. As a member of the 'Middle Group' - neither Anna Freudian nor Kleinian - Rickman's appointment is a deliberate effort to preserve neutral government of the Society.

1948

- Susan Isaacs dies of cancer on 12th October, at the age of 63.

1949

- At the sixteenth Psychoanalytic Congress in Zurich, Klein sees her daughter Melitta for the first time in four years. They do not speak.

1950

- Some rare, silent cine footage shows Melanie Klein walking in the garden of her home in Clifton Hill at about this time. The identity of the filmmaker, and of the gentleman who appears with Klein, are unknown.

Person of the Issue: Melanie Klein (1882-1960)

1951

- In preparation for the celebration of Klein's 70th year, her colleagues and friends publish *Developments in Psychoanalysis*, including essays by Heimann, Isaacs, Riviere, Klein, and others.
- Klein's former lover Chezkel Zvi Kloetzel dies on 27th October.

1952

- Ernest Jones organises a dinner at Kettner's (29 Romilly St, Soho) to celebrate Klein's 70th birthday.
- In photograph, clockwise from left: [sitting] Marion Milner, Sylvia Payne, Eric Klein, Roger Money-Kyrle, Clifford Scott, Paula Heimann, James Strachey, Gwen Evans, [unknown], Michael Balint, Judy Klein (wife of Eric Klein), [standing] Melanie Klein, Ernest Jones, Herbert Rosenfeld, Joan Riviere, Donald Winnicott

1953

- After a period of illness and dizzy spells (and a brief spell in hospital), thought to be brought about by excessive tiredness and overwork, Klein sells her house at Clifton Hill and moves to a smaller flat at 20 Bracknell Gardens, West Hampstead.
- Klein begins work on her autobiography (never published). Professor Janet Sayers has transcribed and annotated the fragments contained in the Melanie Klein archive at the Wellcome Trust. Published in *Psychoanalysis and History*, 15(2), 2013: 127-663.

1954

- Walter Schmideberg, Klein's estranged son-in-law, dies of an ulcerous illness in Switzerland, by now long separated from his wife Melitta.

1955

- On 1st February Klein establishes the Melanie Klein Trust, something she has thought of doing for several years. She invites Wilfred Bion, Paula Heimann, Betty Joseph, Roger Money-Kyrle, and Hanna Segal to be trustees, and puts in £600 to get it going.
- *New Directions in Psychoanalysis* is published.
- Klein attends the Geneva Congress, held on 24th-25th July. On the first day, Klein delivers a paper, 'A Study of Envy and Gratitude.' It is among the most controversial of all Klein's papers, and elicits a heatedly critical reaction. Paula Heimann, by now no longer on good terms with Klein, is among those critical of the paper's assertions.
- On 24th November Klein writes to Heimann, asking her to resign as trustee of the newly established Melanie Klein Trust. Spelling the end of their long and close friendship, Heimann soon after also leaves the Kleinian group.

1956

- Klein, with the help of previous analysand Elliott Jaques, starts to sort through and order her notes on Richard. These notes will become *Narrative of a Child Analysis*, her only full-length account of a single analysis.
- On 6th May the Society marks Freud's centenary year.

1957

- The highly controversial *Envy and Gratitude* is published in June, expanded from Klein's 1955 Geneva Congress paper with the help of Elliot Jacques.
- On her 75th birthday, Klein is given a Victorian garnet and gold set of jewellery by the British Society.

1958

- Ernest Jones dies on the 11th February, at the age of 79.

Person of the Issue: Melanie Klein (1882-1960)

- Listen to a recording of Melanie Klein's voice made at around this time.

1959

- After previously being taken up and then unfinished by French psychoanalyst and philosopher Jacques Lacan, Klein's *Psycho-Analysis of Children* is finally published in a French translation by Françoise and Jean-Baptiste Boulanger.
- Klein reads her paper, 'Our Adult World and Its Roots in Infancy' to an audience of sociologists in London.
- Klein gives her paper, 'On the Sense of Loneliness' at the Copenhagen Congress in July. In it she explores the yearning for an unattainable return to the baby's first experience of an entirely devoted mother figure. The paper will later be published as part of *Envy and Gratitude and Other Works 1946-1963*.

1960

- In the spring Klein is diagnosed with anaemia, and is increasingly exhausted and physically weak.
- During the summer Klein goes to Switzerland, to Villars-sur-Ollon, determined to regain her health. Her son Eric joins her, but by this time she has grown dangerously ill. She returns to England and is immediately taken to hospital. Colon cancer is diagnosed and Klein has an operation at the start of September. The operation seems at first to have been successful, but complications arise after she falls out of bed and breaks a hip. Melanie Klein dies on 22nd September.
- She is cremated at Golders Green Crematorium, her funeral attended by many friends and colleagues. Melitta is not there.

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"One of the many interesting and surprising experiences of the beginner in child analysis is to find in even very young children a capacity for insight which is often far greater than that of adults. "

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Overuse of Social Media Affects the Mental Health of Adolescents and Early Youth

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ABSTRACT

Social media besides being educative role, it increases connections and communications. If used properly, it also builds bridges over barriers and strengthens relationships. It encourages community participation and boosts one's confidence. Blogging can be therapeutic for who are confused, down, or need to vent frustrations. It unleashes one's own potential and helps to find an identity for his/her talent. Negative correlates of social media include, behavioural addiction, the decrease in real life social community participation and academic achievement, as well as relationship problems. Stalking and cyber bullying, identity theft, victimization to rumours, missing out attitude, aggressive and callous behavior and host of other mental and social abnormalities are also the result of excessive use of social media. Due to face book, mobile and tv, we are forgetting our basic values and culture, which leads to families breaking up. The good and bad affects of social media in the Indian context have been outlined in this article with the help of literatures, opinion of the experts, news bits and content from blogs etc.

Keywords: *Overuse, Social Media, Mental Health, Adolescents*

In recent days, we witness a rising number of adolescents becoming the victims of behavioural changes and when we go through their history over a period of time, we learn that it is owing to the overuse of social media and most of them have internet addiction (1) There are growing news reports that the teenagers who engage in social media during the late night could be damaging their sleep and increasing their risk of anxiety and depression. Girls, more than boys seek comfort on social media when they are worried. Teens are so emotionally invested in social media that a fifth of secondary school pupil will wake up at night and log on(2). The report found that there was a "clear association" between longer time spent on social websites and the incidence of mental health problems. As per children wellbeing study also there is clear association between number of hours a child spent on social networking sites and children "difficulties score" - the official measure for the prevalence of mental health issues in children(3)

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Overuse of Social Media Affects the Mental Health of Adolescents and Early Youth

Of late, we are witnessing tremendous misuse of social media. Our youth are falling prey to nefarious designs of terrorist outfits to carry out more anti-India activities, these dreaded organisations continues to use social media to trap more and more misguided Indian youths. The recent case of a man being lynched to death on mere rumors of his storing beef has caught national headlines. Investigations by the Police have revealed that the said incident also lead to fueling of social media activities (4). Indian cyber law requires intermediaries, including users of social media, to exercise due diligence while they discharge their obligations under the law. Service providers and intermediaries can be called upon by governments to remove or disable access to communally sensitive content, as well as also force them to give the details of the persons behind the incident. In the Shreya Singhal case, the Supreme Court has already held that the intermediaries are duty bound when they are called upon by any order of the government to move or disable access to any information as well as provide relevant information pertaining to the identity of the offenders. I believe this power is a very special power which has been conferred under the Information Technology Act, 2000, and needs to be more frequently used (5).

Children bullied frequently four times more likely to report symptoms of mental ill-health. Owing to cyber bullying, youngsters not just avoid going to school, but also become victim of depression and go to the extent of committing suicide. It is necessary on the part of parents to discuss and avail the required medical intervention,

The long hours of chatting and interacting with their friends on social networking sites “Children’s social skills and abilities to make small talk and actively listen, and develop empathy, are severely affected (6) They joke and send photos and videos without truly engaging with people, or truly listening to one another – and they send and make statements without seeing the immediate impact of their comments on the other person. At the other end of the conversation, these messages can be misconstrued.

Social media is more and more addictive among teenagers, excessive use of it has been referred to as behavioural addiction, which is defined as one’s inability to avoid being online to the point where it impacts on other areas of his/her life, including relationships, emotions, social life, school, and so on. It is also recognized that there are different forms of addiction based on the type of Internet activity – for example downloading, forming online relationships, compulsive shopping, accessing pornography and gaming.

Studies say that more than half the teenagers log in to social networking sites (SNS) multiple times in a day. SNS addiction incorporates the experience of the ‘classic’ addiction symptoms, namely mood modification (*i.e.*, engagement in SNSs leads to a favourable change in emotional states), salience (*i.e.*, behavioral, cognitive, and emotional preoccupation with the SNS usage), tolerance (*i.e.*, ever increasing use of SNSs over time), withdrawal symptoms (*i.e.*, experiencing unpleasant physical and emotional symptoms when SNS use is restricted or stopped), conflict

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(i.e., interpersonal and intrapsychic problems ensue because of SNS usage), and relapse (i.e., addicts quickly revert back in their excessive SNS usage after an abstinence period).

Psychologists have confirmed that playing violent video games is linked to aggressive and callous behavior (7). In fact, there have been institutes that have created a psychological scale to measure that addiction. Symptoms like people accessing sites like Facebook and Twitter to forget about their personal problems or spending a lot of time thinking about how to use social media indicate that there is an issue. *Facebook* users had lower Grade Point Averages and spent less time studying than students who did not use this SNS. Of the 26% of students reporting an impact of their usage on their lives, three-quarters (74%) claimed that it had a negative impact, namely procrastination, distraction, and poor time-management. (8)

A study shown that Children who go on social networking sites like Facebook, Twitter and Instagram for more than three hours a day are more likely to have mental health problems. Such children risk their emotional and social development delayed as they spend so much time in virtual world. The pressure of 'always to be perfect' and the overwhelming urge to respond immediately to the texts and posts results into anxiety and a sense of missing out. The worst thing about this is that teenagers need more sleep than adults do, so night-time social media use could be detrimental to their health. Online bullying, slut-shaming etc. which are by-products of excess use of internet are hampering physical and emotional health of young people in our country (9).

Things like online multiplayer games, micro-blogging and other forms like people missing out on important moments in life have led to anti-social behaviours. A new study found that the more time people spent on social networking sites, the less they spent in exercising, with an increasing tendency to opt out of team sports. Spending seven to eight hours a day on these websites also leads to unhealthy snacking and hence obesity. Studies have found that while in practice, as social media interaction increases, problems self-esteem-related problems should decrease. But in reality, it was found that those who overindulged in online activities had very low self-esteem. They seem to behave counterproductively, bombarding their friends with negative tidbits about their lives and making themselves less likeable.(10)

Majority of social media users were under 30, with most being adolescents. According to research, 95% of teenagers who use social media have witnessed forms of cyberbullying on social networking sites and 33% have been victims of cyberbullying. Obscene face book comments put lot of pressure on youngsters and it led to disastrous repercussions in few cases, like major depression and suicides. It shows, how much is it important to be considered 'cool' and 'popular' and to get immediate and maximum comments or 'likes' on status updates or pictures and up in friends' count' by the day. However, it is important to note that in all the above cases, it was not the inherent nature of social media, but the fact that our need to be electronically connected at all (11.)

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Overuse of social media can refrain from participating in real world activities, today's generation lives more in the virtual than in real world, almost to a point of addiction. This 'Virtual social life' the outcome of too much indulgence in social media is eating away our 'real-time social life', e.g., relationships etc. People start spending less time with family and friends in real life and desire more for a cyber relationship. Facebook is good for staying in touch with family and friends, but bad for relationships. In a family where even all members remain together, they don't find time to interact with each other as they individually pre-occupied in their own virtual worlds in the social media.

Social media is playing the demon in shattering social relationships as it doesn't allow any privacy. The smartphone is becoming that "third person" in the bedroom and this doesn't allow for privacy or the development of romance. The most common impact of a break-up turns out to be stalking on social media as the need to stay updated with a former partner's daily routine is psychological. Trust personal opinions and space etc., the elements of relationships are weakening due to excessive use of social networking. Issues such as who has liked whose photo, who has commented what where and things like and even things like private chats have become relationship killers.

Excessive Facebook users are more likely to connect or reconnect with other Facebook users, including previous partners, which may lead to emotional and physical cheating. The main reasons for access are generally relief from boredom or for some sort of occupation while waiting, Couples find it easy to compare their relationships with others as well as compare their partners with social figures, leading to a drop in romance and development of problems in the relationship. (12). Social media create disturbances when priorities get misplaced and this affects relationships (13). Social media is a big source of projection of materialistic life as being good and attempts are made to replicate this. The desire to have the lost object of affection and love back in one's life, finding out about how others are doing without them - like have they adjusted better post break up than with them, have they moved on in life or not, whether the new relationship has given them happiness, has the new life made them forget their ex - are a few of the reasons for stalking (14).

Studies have shown that there is a greater tendency to stalk when the breakup was difficult on one or both of the individuals in a relationship. "Staying up-to-date about an ex also allows one to reassure oneself that the breakup is affecting the other the same way; it allows people to keep checking to make sure their significant other is just as unhappy and lonely as they are. Also, there is a natural anxiety and fear attached with any break-up - the fear that the ex may just find happiness elsewhere. Addiction to social media also leads to many behavioral changes post break-up. "One starts repeatedly checking and rechecking the smartphone and finds it difficult to fall asleep when accessing social media before bed. One becomes more agitated if unable to access social media, leading to a greater amount of perceived boredom (12).

Spending too much time online may increase your risk of catching a cold or the flu as excessive internet use can damage the immune function, a new study has claimed. -(15)

CONCLUSION

Social media in the form of Social Networking Sites (SNS) is seen as current 'global phenomenon' with an exponential rise in their use within the last few years. Extraverts use social networking sites for social enhancement, whereas introverts use it for social compensation (16)

Besides being educative role, social media increases connections and communications. If used properly, it also builds bridges over barriers and strengthens relationships. It encourages community participation and boosts one's confidence. Blogging can be therapeutic for who those are confused, down, or need to vent frustrations. It unleashes one's own potential and helps to find an identity for his/her talent (17)

Negative correlates of social media include, behavioural addiction, the decrease in real life social community participation and academic achievement, as well as relationship problems. Stalking and cyberbullying, identity theft, victimization to rumours, missing out attitude, aggressive and callous behavior and host of other mental and social abnormalities are also the result of excessive use of social media. Due to face book, mobile and tv, we are forgetting our basic values and culture, which leads to families breaking up.

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14. Internet addiction may weaken your immune system –Study- by **Professor Phil Reed** , Swansea University
15. Online Social Networking and Addiction—A Review of the Psychological Literature- Daria J. Kuss, and Mark D. Griffiths
16. Expert opinion by Ms Melissa Page, blogger based in San Diego, California.

Cognitive Style of Humanities, Commerce and Science Students - A Study on Higher Secondary Students from West Bengal

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ABSTRACT

Cognitive style or thinking style is a term used in cognitive psychology to describe the way individuals think, perceive and remember information. The present study aims to understand the cognitive style adapted by higher secondary students. The study sample consists of 90 higher secondary school students (30 each from science, humanities and commerce background). The male female ratio was 50:50. The age range was from 16-18 years. They were all from middle socio-economic status. They were administered an adapted version of cognitive style questionnaire by Ancona, Kochan, Scully, Van maanen and Westney. The results indicate for the dimension of Sensing there was significant effect of stream of study and gender. For the Intuition dimension again there was a significant effect of stream and gender. For Perceiving dimension also there was a significant effect of stream and gender. Sensing was highest for the science stream and lowest for the Humanities. Again Intuition was highest for the Humanities stream and lowest for the Science stream. The males have always scored highest in the dimension of Perceiving than their female counterparts both in Humanities and Science stream. And the female irrespective of the stream of study has scored higher in the Intuitive dimension.

The present study is helpful in the field of designing educational guidance and curriculum for the Higher Secondary Students.

Keywords: *Students, Cognitive style, Course of study.*

Cognitive style is considered as one of the most important variable affecting the students in academics. Cognitive style is described as the way individuals imagine, perceive, distinguish, recognise, think and remember information. It is a persisting habitual pattern of perceptual and intellectual activity (Rishipal, 2012). With the help of cognitive styles an individual acquires knowledge (cognition) and processes information (conceptualisation) (Kirton, 2003).

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Ellis (2000) said the characteristic cognitive, affective and physiological behaviours serve as relatively stable indicators of how learners perceive, interact with and respond to the learning environment. Cognitive style is viewed as bipolar meaning that learners can be found on a continuum of two opposing characteristics (Grossmann, 2011). The cognition centred approach focussed on individual differences in cognition and perception, and as a result the researchers identified several styles, abilities and dimensions of cognitive processing (Cano Garcia, Francisco, Hughes, and Elaine, 2000). Cognitive and constructivist theorists have considered learning and instruction related to individual differences (Kiraz, Cagiltay, Cakiroglu, and Karaaslan 2005). Optimum learning depends on a variety of factors like past learning, stage of development, nature of material and individual differences. So, individualised learning is strongly associated with the characteristics of the learner, his or her cognitive style. Cognitive style has been identified as one of the most pertinent factors that affect students' learning preference (Chen and Liu, 2009).

Cognitive style remains a key concept in the areas of education and management. If a pupil has a cognitive style that is similar to that of his/her teacher, the chances that the pupil will have a more positive learning experience are improved. Likewise, team members with similar cognitive styles likely feel more positive about their participation with the team. While matching cognitive styles may make participants feel more comfortable when working with one another, this alone cannot guarantee the success of the outcome.

Personality is the sum total of the behavioural and mental characteristics that are distinctive of an individual (Colamn, 2009,). It refers to individuals' unique and relatively stable patterns of behaviour, thoughts and feelings (Baron, 2006,). The theory of person-situation interaction predicts that the extrovert will adapt best when he is asked to collaborate with others and that the introvert will adapt best when she is asked to carry out tasks independently (Santrock, 2006,). Extroverted individuals are outgoing, sociable and assertive; introverts are quiet and shy (Robbins, 2005). In a study it was found that the development of social norms among different personality groups and found that introvert females showed better retention in reasoning concepts than their counterpart i.e. male and extrovert.

The dominant view in the field of personality psychology today holds that personality emerges early and continues to change in meaningful ways throughout the lifespan. Evidence from large-scale, long-term studies has supported this perspective.

In the present study 8 dimensions of cognitive styles have been taken into consideration and has been applied to Higher Secondary students(belonging to Humanities, Commerce and Science group respectively)by using The Cognitive style questionnaire by Ancona, Kochan, Scully, Van Maanen, and Westney (1997), and the dimensions are; **Introversion, Extraversion, Sensing, Intuitive, Thinking , Feeling, Judging, and Perceiving** respectively.

Introversion: Introversion is one of the major personality traits identified in many theories of personality. Introversion is generally viewed as existing as part of a continuum along with extraversion.

Common Introversion Traits: Very self-aware, Thoughtful, Enjoys understanding details, Interested in self-knowledge and self-understanding, Tends to keep emotions private.

Extraversion: People who are high in extraversion tend to seek out social stimulation and opportunities to engage with others. These individuals are often described as being full of life, energy and positivity.

Common Extraversion Traits: Warmth, Seeking novelty and excitement, Gregariousness, Assertive, Cheerful, Talkative, Enjoys being the centre of attention, Action oriented.

Sensing: Sensing is an ability to deal with information on the basis of its physical qualities and its affection by other information. Sensing refers to how people process data. Sensing people focus on the present, they are "here and now" people, who are factual and process information through the five senses. They see things as they are, they are concrete thinkers.

Common sensing traits: Concrete, Realistic, Lives in the present, Aware of surroundings, Notices details, Practical, Goes by senses, Factual.

Intuitive: Intuition refers to how people process data. Intuitive people focus on the future and the possibilities. They process information through patterns and impressions. They read between the lines, they are abstract thinkers. It is also an ability to deal with the information on the basis of its hidden potential and its possible existence intuitive types.

Common intuitive traits: Future-focused, Sees possibilities, Inventive, Imaginative, Deep, Abstract, Idealistic, Complicated, Theoretical.

Thinking: Thinking is an ability to deal with information on the basis of its structure and its function. Thinking refers to how people make decisions. Thinking people are objective and make decisions based on facts. They are ruled by their head instead of their heart. Thinking people judge situations and others based on logic.

Common thinking traits: Logical, Objective, Decides with head, Wants truth, Rational, Impersonal, Critical, Thick-skinned, Firm with people, Driven by thought.

Feeling: Feeling refers to how people make decisions. Feeling people are subjective and make decisions based on principles and values. They are ruled by their heart instead of their head. Feeling people judge situations and others based on feelings and extenuating circumstances. It is an ability to deal with information on the basis of its initial energetic condition and its interactions.

Common feeling traits: Decides with heart, Dislikes conflict, Passionate, Driven by emotion, Gentle, Easily hurt, Empathetic, Caring of others, Warm.

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Judging: Judging is the preference outwardly displayed. Judging does not mean “judgmental”. Judging people like order, organization and think sequentially. They like to have things planned and settled. Judging people seek closure. Judging types are motivated into activity by their decisions resulting from the changes in a situation.

Common judging traits: Decisive, Controlled, Good at finishing, Organized, Structured, Scheduled, Quick at tasks, Responsible, Likes closure, Makes plans.

Perceiving: Perceiving is the preference outwardly displayed. Perceiving people are flexible, like to keep their options open and think randomly. They like to act spontaneously and are adaptable. Perceivers like to keep things open ended. Perceiving types are motivated into activity by the changes in a situation.

Common perceiving traits: Adaptable, Relaxed, Disorganized, Care-free, Spontaneous, Changes tracks midway, Keeps options open, Procrastinates, Dislikes routine, Flexible.

NEED FOR THE STUDY:

The present study was actually conducted to find out that whether there is a difference between males and females in terms of cognitive style and whether cognitive style differs along with the stream of study.

Hypothesis:

- H1-** There will be no effect of stream of study on cognitive style of Higher Secondary students in terms of – Introversion, Extraversion, Sensing, Intuitive, Feeling, Thinking, Judging, and Perceiving.
- H2-** There will be no effect of gender on cognitive style of Higher Secondary students in terms of- Introversion, Extraversion, Sensing, Intuitive, Feeling, Thinking, Judging, and Perceiving.
- H3-** There will be no significant effect of interaction between gender and stream of study with respect to above mentioned dimensions of cognitive style.

METHOD

Sample:

For the present investigation a sample group of 90 students (30 each from Humanities, Commerce, and Science) were selected according to the requirement of the study and convenience of data collection by the researcher.

Inclusion Criteria of the Sample Group:

AGE: 16-18 years

GENDER: Both male and female were taken for this study.

EDUCATIONAL QUALIFICATION: Higher secondary students.

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ANY PAST HISTORY OF ILLNESS (INCLUDING BOTH PHYSICAL OR PSYCHOLOGICAL): data of the Students having any sort of physical or psychological illness were not taken into consideration.

SOCIO-ECONOMIC STATUS: middle class and above

AREA: Howrah, Hooghly and Kolkata.

Tools Used:

In conducting the present study 2 questionnaire were administered. They are:

- ❖ Background information schedule
- ❖ Cognitive style questionnaire.

DESCRIPTION OF THE TOOLS:

1. Background information schedule was developed to cover the aspects like age, gender, education, family income, number of siblings, residential locality, and overall socio economic status.
2. The Cognitive style questionnaire by Ancona, Kochan, Scully, Van Maanen, and Westney (1997) was chosen to determine the personality style of the higher secondary students of Humanities, Commerce, and Science.

This is a set of questions designed to indicating the cognitive style. The answer chosen to any question is neither "right" nor "wrong". Simply indicating the student's personality style.

Below there are a number of paired statements and words. Each one should be credited with a score that each pair adds up to 5. For example:

In describing my work, I would say it is:

- a. Challenging and exciting
- b. Routine and dull

$$\begin{array}{r} _3_ \\ + _2_ \\ \hline 5 \end{array}$$

Clearly, work can sometimes be challenging and sometimes dull. In the above example it has been indicated that mostly finding work to be challenging, weighted "challenging" as 3 and "routine" as 2. The students also have the provision to assign number to the statements as 4+1, or 0+5, or any other combination that adds to 5. (Negative numbers should not be used). The scores of all the different 8 dimensions were added together. Then the mean and S.D of the scores were determined. The scoring of the dimensions is like the following way.

Extraversion 2b+5b+8a+15a+19a+21a+28b

Introversion 2a+5a+8b+15b+19b+21b+28a

Sensing 4b+9a+11a+12b+17b+25a+29a+30b

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Intuitive	4a+9b+11b+12a+17a+25b+29b+30a
Thinking	1b+7b+13b+16a+22b+24a+26b+27b
Feeling	1a+7a+13a+16b+22a+24b+26a+27a
Judging	3a+6b+10a+14b+18a+20b+23a
Perceiving	3b+6b+10a+14a+18b+20a+23b

The Chronbach's Alpha method of Reliability was used in order to determine the extent to which each of the domains is reliable. After administering it was found out as following:

- The Chronbach's Alpha for the category of Extroversion was found out to be 0.539. The numbers of items present under this domain were 7.
- The Chronbach's Alpha for the category of Introversion was found out to be 0.530. The numbers of items present under this domain were 7.
- The Chronbach's Alpha for the category of Sensing was found out to be 0.797. The numbers of items present under this domain were 8.
- The Chronbach's Alpha for the category of Intuitive was found out to be 0.911. The numbers of items present under this domain were 8.
- The Chronbach's Alpha for the category of Thinking was found out to be 0.849. The numbers of items present under this domain were 8.
- The Chronbach's Alpha for the category of Feeling was found out to be 0.861. The numbers of items present under this domain were 8.
- The Chronbach's Alpha for the category of Judging was found out to be 0.799. The numbers of items present under this domain were 7.
- The Chronbach's Alpha for the category of Judging was found out to be 0.884. The numbers of items present under this domain were 7.

RESULTS AND DISCUSSION:

Brief Summary of the Mean and S.D of the Variables Under Study (Cognitive Style).

Variables	Humanities		Commerce		Science	
	MEAN	S.D	MEAN	S.D	MEAN	S.D
Extraversion	17.10	5.70	16.87	5.08	16.43	5.72
Introversion	18.70	5.29	18.13	5.08	18.57	5.72
Sensing	20.93	6.99	23.70	4.25	24.93	3.32
Intuitive	18.30	6.16	16.30	4.25	15.10	3.34
Thinking	18.73	4.59	19.95	4.46	18.73	3.42
Feeling	19.53	5.67	20.40	3.81	21.33	4.78
Judging	19.63	6.35	14.60	3.81	13.67	4.78
Perceiving	22.00	5.65	20.07	4.49	21.27	3.42

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Hypothesis 1 and 2 are accepted for the dimensions of Sensing, Intuition and Perceiving. For rest of the dimensions, the hypothesis is not accepted. Hypothesis 3 has been totally rejected as for none of the dimensions the interaction effect has been found to be significant.

Statistical Analysis (ANOVA)

DIMENSION		TYPE III SUM OF SQUARES	Df	MEAN SQUARES	F	SIGNIFICANCE
EXTRAVERSION	STREAM	6.867	2	3.433	.112	.894
	GENDER	21.511	1	21.511	.704	.404
	Stream*gender	52.156	2	26.078	.854	.429
INTROVERSION	STREAM	5.267	2	2.633	.091	.913
	GENDER	19.600	1	19.600	.675	.414
	Stream*gender	50.867	2	25.433	.876	.420
SENSING	STREAM	251.756	2	125.878	5.102	.008
	GENDER	108.900	1	108.900	4.413	.039
	Stream*gender	82.467	2	41.233	1.671	.194
INTUITIVE	STREAM	156.800	2	78.400	3.637	.031
	GENDER	84.100	1	84.100	3.901	.052
	Stream*gender	52.267	2	26.133	1.212	.303
THINKING	STREAM	57.156	2	28.578	1.311	.275
	GENDER	17.778	1	17.778	.816	.369
	Stream*gender	1.422	2	.711	.033	.968
FEELING	STREAM	30.422	2	15.211	.847	.432
	GENDER	.544	1	.544	.030	.862
	Stream*gender	21.489	2	10.744	.598	.552
JUDGING	STREAM	48.622	2	24.311	1.031	.361
	GENDER	1.111	1	1.111	.047	.829
	Stream*gender	35.822	2	17.911	.760	.471
PERCEIVING	STREAM	618.067	2	309.033	12.767	.000
	GENDER	104.544	1	104.544	4.319	.041
	Stream*gender	115.089	2	57.544	2.377	.099

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Brief Summary of the Mean Scores of the Variables Under Study in Terms Of Stream And Gender of the three Different Groups (Humanities, Commerce And Science) is Presented Below.

Variables	Humanities		Commerce		Science	
	Male	Female	Male	Female	Male	Female
	Mean	Mean	Mean	Mean	Mean	Mean
Extraversion	16.25	17.93	15.67	18.07	17.00	15.87
Introversion	19.47	17.93	19.33	16.93	18.00	19.13
Sensing	23.27	18.60	24.67	22.73	24.93	24.93
Intuitive	16.40	20.20	15.33	17.25	15.07	15.13
Thinking	21.47	22.53	19.80	20.33	20.33	21.80
Feeling	18.13	19.33	20.27	19.67	19.67	18.20
Judging	19.13	19.93	21.40	19.40	19.40	21.60
Perceiving	17.13	22.13	13.60	15.60	15.60	13.40

From the Anova table, it has been found that in the category of **Stream** the between group F score is significant in case of Sensing, Intuition and Perceiving. In general the Science stream students have scored the highest in the dimension of sensing and the least scorer is the Humanities group of students. Again in the dimension of Intuition, the Humanities group students have scored the highest and the least score has been made by the students belonging to Science group. Finally in the dimension of Perceiving the highest scores have been made by the humanities group and the least score has been made by the students belonging to Commerce group.

It has also been found that in case of **Gender** the Mean scores of males in the category of Sensing are highest for the Science group followed by Commerce group and finally by Humanities group. Again the mean scores of females in the category of Sensing are highest for the Science group followed by Commerce group and finally by Humanities group. The Mean scores of males in the category of Intuition are highest for the Humanities group followed by Commerce and finally by Science group. Again the mean scores of females in the category of Intuition are highest for the Humanities group followed by Commerce group and finally by Science group. The Mean scores of males in the category of Perceiving are highest for the Humanities group followed by Science and finally by Commerce group. Again the mean scores of females in the category of Intuition are highest for the Humanities group followed by Commerce group and finally by Science group.

In case of **Gender*Stream** category, the scores of the interaction between gender and stream has not been found to be significant in case of any of the dimensions of cognitive style.

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A study was conducted by Dr. Parkash Chandra Jena (2013) on 300 rural senior secondary school students where the finding revealed that the group difference between male and female undergraduate students on systematic cognitive style as well as on intuitive cognitive style is found to be insignificant, but in the present study the effect of Gender has been found to be significant for the following dimensions of cognitive style, namely, Sensing, Intuition and Perceiving. Albert (2004) also conducted a study of relationship between cognitive style, gender, intelligent quotient and academic achievement of high school students and recorded a low but significant correlation between cognitive style and academic achievement. Again Parikh (2004) studied the relationship of cognitive style and academic achievement of boys and girls and found that achievement was not related to cognitive style; boys and girls do not differ in their cognitive style. Dani (2004) studied scientific attitude and cognitive style of higher secondary students and found that boys and girls did not differ in their cognitive style. Suresh (2003) studied relationship of extraversion-introversion in adolescents to their adjustment and academic achievement and found that the relationship between introversion and home adjustment, introversion and total adjustment was negative in total sample. Jahan (2004) examined personality profile of students of science, arts and commerce at higher secondary level of education in relation to their academic achievement and found that the overachievers of science stream were more reserved, intelligent, emotionally stable, controlled and relaxed as compared to underachievers; the overachiever of arts stream were more warm hearted, intelligent, affected by feelings, undemonstrative, assertive, enthusiastic, conscientious, and tensed as compared to underachievers; the over achievers of commerce stream were more reserved, intelligent, affected by feelings, sober, conscientious and self-assured as compared to the underachievers. In the present study also the Science stream students have found to score highest in the dimension of Sensing, Intuition and Perceiving. In various other studies it has been found that the personality profiles and cognitive factors of academic failure among science and arts students at various levels and the relationship between different personality factors viz. intelligence, conformity, achievement motivation, study habits, memory span and academic failure were not significant. The present study reveals that the Humanities students scored highest in the Intuitive dimension.

IMPLICATIONS

- ❖ The present study helps to give a better view of the cognitive style adapted by the students which reveals the personality traits of the Students and it will help in the determination of their professional placement in future.
- ❖ This study is quite beneficial in the field of educational psychology.
- ❖ One of the important issues was the early finding of marked individual differences among students in how they perform this task.
- ❖ Findings indicated that quality questioning, as well as activities and pedagogy that stimulate met cognition are key activities for stimulating students' cognition.

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Frustration Level of High School Students among Their Gender

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ABSTRACT

The present study aimed to assess the Frustration level of high school students among their gender in relation to their Montessori and Traditional method of education. It was hypothesized that male and female high school students of Montessori education and Traditional education have significant difference on Frustration level. In order to verify the above hypotheses a sample of 120 students were selected from high schools which offer education with Montessori (N=60) and Traditional methods (N=60) include equally male and female students. To measure variable the Frustration scale was used which is developed and standardized by Chauhan & Tiwari (1999). This scale administered individually on the subjects. The data were subjected to 't' analyses and the major findings of the study revealed that following are dawn:

1. The male and female students of Montessori education obtained 't' value is 0.80, which is not significant level.
2. The male and female students of Traditional education obtained 't' value is 2.19, which is significant at 0.05 level.
3. There is no significant difference between the male students of Montessori and Traditional education. The obtained 't' value is 1.11, which is not significant level.
4. There is significant difference between female high school students of Montessori and Traditional education. The obtained 't' value is 2.98, which is highly significant at 0.01 level.

Keywords: Gender, Frustration Montessori and Traditional Method of Education.

Freud (1943) developed the concept of frustration first time in human beings. According to Freud, "frustration occurs whenever pleasure seeking or pain-avoiding behaviour is blocked". He established a causal relationship between frustration and aggression. With the work of Freud, several theories of frustration have appeared during the late 1930's and 1940's. These theories propounded 4 modes of frustration such as-regression, resignation, fixation and aggression.

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Encyclopedia of Psychology (1951) defines, “frustration is any interference with a goal response or with the instrumental acts leading to it”.

Whereas, the Oxford Advanced Learner’s Dictionary (2000) defines, “Frustration is the feeling that makes somebody feels annoyed or impatient because they cannot do or achieve what they want”.

“Frustration refers to the blocking of behaviour that is directed towards a goal” (Robinson, 1961; Murphy, 1964; Coleman, 1964; Kretch & Crutchfield, 1965). Frustration is ‘motivational or affective state resulting from being blocked, thwarted, disappointed or defeated’ (English and English, 1959), has a different mechanism of behaviour, lacking goal-orientation, having feeling of intensity, compulsiveness, appearing a product of need-deprivation (Chauhan & Tiwari, 1972).

Davitz (1942) defined frustration as the blocking of drive evoked behaviour, thwarting of a need or desire (Coleman, 1971). It exists when a goal response suffers interference (Dollard et al., 1939). When the individual seek to attain a goal and finds that his way to the goal is blocked by an obstacle or a barrier, tension is produced and it lasts as long as the barrier is present. Every individual tries removing these barriers or obstacles, but frustration occurs only when the organism is unable to remove the hindrances. So in frustration motivated behaviour of the individual is blocked and he is unable to remove the insurmountable barrier, that’s why underlying tension resolves and results into frustration.

Frustration-Regression Theories:

In Freudian term, regression means a return to earlier mode of adjustment. Operationally regression may be defined in terms of a behaviour characterized by bashfulness, being finicky about foods, lack of self-control, homesick when away from home, crying easily, defective speech, excessive day-dreaming, exorbitantly ambitious etc.

According to one interpretation, regression indicates that the individual attempts to return to past security from the present midst of insecurity. Regression is the end response of frustration (Barker et al., 1941). Regression may be defined as an ego-defense mechanism in which ‘the individual retreats to the use of less mature responses in attempting to cope with stress and maintain ego integrity’ (Coleman, 1971). Here an individual emphasizes on the superior joys of ‘the good old days’ so it has been called the ‘old oaken bucket’ delusion. Previous satisfaction provides a mode of proper adjustment in regression so the individual takes help of this defense mechanism.

Frustration-Resignation Theory:

Resignation is an emotionally tinged attitude shown by cessation of active response to a situation which we have previously been making efforts to alter (Chauhan & Tiwari, 1972). In resigned

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behaviour individual obtains extreme elimination of needs, no plans, no definite relations to the future, either no hope at all or hope which is not taken seriously.

The factors related to resignation type of behaviours are limitations of all needs, no plan, no definite relation to future, a withdrawal tendency from social contacts, frequent and serious consideration of committing suicide, longing for loneliness, no social type of hobby, retreatism, returning within one's self, day-dreaming, lack of interest in his surroundings etc.

Frustration-Fixation Theory:

Maier (1949) noted fixated behaviour tend to be repeated over and over again with out variations and shows a degree of resistance to change. Fixated behaviour as such remains compulsive. This compulsive and stereotyped pattern has been called an abnormal fixation. In this context Maier has put another theory of 'frustration-fixation' hypothesis, where behaviors become stereotyped and is persisted in despite consequences. The frustrated individual behaves more or less rigidly, compulsive in many activities and stereotyped. Fixative behaviour seriously blocks the acquisition of new forms of adjustment.

Fixated behaviour may be taken in terms of interests and emotional attitudes to designate the attachment generally interpreted to belong to an early stage of development. The fixated persons have a difficulty in forming new attachments developing new interest or adaptations (Chauhan & Tiwari, 1972).

Frustration-Aggression Theory:

Freud emphasizes the study of aggression to understand human behaviour disorders. For Freud, aggression is one of the consequences of frustration. This suggestion of Freud widely accepted by Dollard et al., (1939), and formulated a theory and postulated that frustration results in aggression.

"Aggression has been defined as an act, whose goal response is injury to an organism or organism-surrogate" (Dollard et al., 1939). Aggression is defined as behavior intended to injure the person toward whom it is directed.

Yale group hypothesis of 'frustration-aggression' defined aggressive behaviour as logical and expected consequence of frustration. They state that when our efforts relate to the goal-directed behaviour suffers interference; our first reaction is often one of attacking and attempting to remove the obstacle (Dollard et al., 1939).

Montessori Education:

Montessori education is an education approach developed by Italian physician and educator Maria Montessori. Montessori education is practiced in an estimated 20,000 schools worldwide, serving children from birth to eighteen years old. This education is characterized by an emphasis

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on independence, freedom within limits, and respect for a child's natural psychological development, as well as technological advancements in society. Although a range of practices exists under the name "Montessori", the primary elements are;

- Mixed age classrooms, with classrooms for children 3 to 6 years old by far the most common.
- Student choice of activity from within a prescribed range of options
- A constructivism or discovery model, where students learn concepts from working with materials, rather than by direct instruction
- Children are to be respected as different from adults and as individuals who differ from each other
- The child possesses an unusual sensitivity and intellectual ability, unlike those of the adult, to absorb and learn from his environment, both in quality and quantity
- The first six years of life are the most important years of a child's growth when unconscious learning gradually emerges to the conscious level

In the Montessori system of education, each child is a unique being. He is encouraged to develop social and emotional skills and body-mind coordination as well as cognitive preparations for future intellectual activities.

A method of schooling that focuses on personal development rather than exams produces more mature, creative and socially adept children, scientists have found. Psychologists in the US found that across a range of abilities, children at Montessori schools out-performed those given a Traditional education. Some of the biggest differences were seen in social skills and behaviour. Montessori children displayed a greater sense of "justice and fairness", interacted in an "emotionally positive" way, and were less likely to engage in "rough play" during break times.

The method discourages Traditional competitive measurements of achievement, such as grades and tests, and instead focuses on the individual progress and development of each child. The scientists concluded: "Montessori education fosters social and academic skills that are equal or superior to those fostered by a pool of other types of schools."

City Montessori school (CMS) at Lucknow, India:

This school is very biggest school in the world. This school has bagged Guinness World Records awards the title to the City Montessori School (CMS) in Lucknow in the 2010-2011 academic years. The school has above 45000 students with 2500 teachers, 3700 computers, 1,000 classrooms and 1000 school bus.

Goal: True progress of humanity is impossible unless and until the goals to which education is geared are completely revised – with spiritual development at its centre, not as an add on at the margins of education. These new goals for education will free it from its largely economic context. This revises greatly our expectations of human potential and its outcome through education. The goal of education is to inspire every child to become both good and smart, a pride

of the human race, a citizen of the world and a light of humanity. It defines education as a continuous and creative process.

Importance: importance to inner over outer aspects and taking practical measures that support these directions, a child can become a light of this world, serving her community in unique and creative ways, with a sense of purpose and motivation that comes from within. Knowledge, wisdom, spiritual perception and eloquent speech, with deeds not words as testimony, are Four Outcomes of a Broader, Bolder educational process. These are the most important outcomes from education.

'Spiritual understanding combined with reason expands a child's ability to better perceive, empathize and comprehend.' There is a natural connection between science and spirituality. Human beings are endowed with spiritual capacities.

LITERATURE REVIEW

Dollard et al., (1939) studied frustration and aggression in adolescence. The last important phase of maturation in the life of the individual and the last period of intensified socialization occurs at pubescence. It has been generally recognized that this period of adjustment is an especially critical one that produces many conflicts and typical behaviour patterns as a result of the efforts of adolescents to make adjustments to new physiological instigations and to learn the new habit patterns demanded by society. This interference with the redirection of drive-instigated behaviour is presumed to be frustrating and hence an increase of aggression at this time is to be anticipated. The authors examined in their article some of the facts of pubescence, to attempt to analyze the main frustrating situations, and to describe some of the resulting aggressive behaviour.

Bateson and Gregory (1941) studied the frustration-aggression hypothesis and culture. The necessity is pointed out for assuming that the frustration-aggression hypothesis refers simply to sequences of culturally modified acts. Two cultures are contrasted, the Iatmul of New Guinea, and the Balinese. The hypothesis fits the former perfectly, with the added modification that they have invested aggression with pleasure and convert all their cognitive efforts into imaginary aggressions. But the Balinese show no aggression reaction what so ever to interruptions of their acts. Only the children show signs of frustration and temper tantrums. They lose these later as a result of the unique relations in play between mother and child which discourage any goal-expectancy set.

Miller (1941) studied the frustration-aggression hypothesis. A previous statement in the book Frustration and aggression that "the occurrence of aggression always presupposes the existence of frustration and contrariwise frustration always leads to some form of aggression" is misleading in the latter half. A suggested reformulation is that "frustration produces instigations to a number of different types of response, one of which is instigation to some form of

aggression." The determination of the presence of such instigation, when the overt behaviour is prevented, can be made by observing indirect or less overt acts. 4 chief lines of investigation suggested by the hypothesis are outlined.

Seashore and Bavelas (1942) studied frustration in children. 18 children, 9 of whom were cases of a child guidance clinic, repeatedly drew men for the Good enough test, under the observation of the experimenter and an assistant. After each performance the experimenter expressed implied criticism by asking the child to draw another "better" one, until the child had drawn 15 or refused to do more. 10 cases showed deterioration of performance, some drawings being unsociable. Changes in attitude, as shown by time spent on drawings and conversation, were marked. The implications of the findings are discussed and some of the protocols included.

Roger (1943) studied regression mode of frustration. The relation between regression and development is of special interest and significance. The indirect way of studying the dynamics of development by studying regression may prove to be fruitful for the whole problem of development. This chapter begins by describing the behaviour and state of the person corresponding to different developmental levels. Next, it reports an attempt to create regression in children by frustration. It can be viewed from two angles: (a) it is an attempt to clarify the nature of regression and the conditions leading to it by testing certain theoretical assumptions about regression. (b) It can be viewed as a contribution to the study of frustration.

Berkowitz and Leonard (1989) studied frustration-aggression hypothesis. The original formulation's main proposition is limited to interference with an expected attainment of a desired goal on hostile (emotional) aggression. Although some studies have yielded negative results, others support the core proposition. Frustrations can create aggressive inclinations even when they are not arbitrary or aimed at the subject personally. Interpretations and attributions can be understood partly in terms of the original analysis but they can also influence the unpleasantness of the thwarting. A proposed revision of the 1939 model holds that frustrations generate aggressive inclinations to the degree that they arouse negative affect.

RESEARCH METHODOLOGY

Research problem:

There is significant difference on Frustration level of high school students among gender in relation to their Montessori and Traditional method of education?

Objective:

- To explore the gender difference in Frustration level of high school students in relation to their Montessori and Traditional method of education.

Frustration Level of High School Students among Their Gender

Hypotheses:

1. Male students of Montessori education have significantly higher level of Frustration than female students of Montessori education.
2. Male students of Traditional education have significantly higher level of Frustration than female students of Traditional education.
3. Male students of Traditional education have significantly higher level of Frustration than male students of Montessori education.
4. Female students of Traditional education have significantly higher level of Frustration than female students of Montessori education.

Sample of the study:

The study was conducted on 120 samples of high school students of Montessori and Traditional Method of education out of which 60 (30 male and 30 female) students studying in 8th and 9th standard were selected from Montessori method of education of Chandana High School, Sirasi and 60 (30 Boys and 30 Female) students in 8th and 9th standard with the age group of 12 to 16 years were selected from Karnataka University Public School located in Dharwad, Karnataka state.

Tools of study:

Frustration Test developed and standardized by Chauhan & Tiwari (1999), has 40 items with 4 dimensions such as Fixation, Regression, Resignation and Aggression and each dimension has 10 items. Frustration following scoring pattern of 5, 4, 3, 2, 1 & 0. The test-retest reliability for the subscales of four modes of Frustration ranges from .78 to .92 and on total scale the reliability is .88. Where as validity of the scale is found to be significant level.

Statistical Techniques:

Obtained samples raw scores were converted into standard scores using 16.0 versions of SPSS, subsequently the mean and SD was calculated. The data was subjected to independent sample 't' analysis to find the significant difference between the boys and female of Montessori and Traditional Method of education.

RESULTS AND DISCUSSION*Table no 01: Means, standard deviations and 't' value of the male and female students of Montessori education on Frustration.*

Frustration		Sample Group (N=60)		
		Male Students of Montessori education (N=30)	Female Students of Montessori education (N=30)	't' values
Regression	Mean	46.37	49.46	1.40 ^{NS}
	SD	9.23	7.77	
Fixation	Mean	49.92	49.32	0.27 ^{NS}
	SD	9.03	7.89	
Resignation	Mean	44.95	50.15	2.05*
	SD	9.86	9.71	
Aggression	Mean	51.13	42.27	4.01**
	SD	9.16	7.86	
Total Frustration	Mean	46.65	48.39	0.80 ^{NS}
	SD	8.91	7.73	

NS: Not significant. *Significant at 0.05 level. **Significant at 0.01 level

The table no 01 shows means, standard deviations and 't' value of the male and female students of Montessori education on Frustration. The Regression and fixation mode of Frustration there is no significant difference between male and female students of Montessori education. The obtained 't' value for the mean difference are respectively 1.40 and 0.27 which is significant level. On the Resignation and Aggression mode of Frustration there is significant difference between male and female students of Montessori education. The obtained 't' value for the mean difference are respectively 2.05 which is significant at 0.05 level and 4.01 which is highly significant at 0.01 level. Further result found that, on the total Frustration the female students of Montessori education mean score of 48.39 then the male students of Montessori education (M=46.65). The obtained 't' value for the mean difference is 0.80 which is not significant level.

Frustration Level of High School Students among Their Gender

Table no 02: Means, standard deviations and ‘t’ value of the male and female students of Traditional education on Frustration.

Frustration		Sample Group (N=60)		
		Male Students of Traditional education(N=30)	Female Students of Traditional education (N=30)	‘t’ values
Regression	Mean	49.65	54.53	1.76 ^{NS}
	SD	11.56	9.77	
Fixation	Mean	47.11	53.68	2.30*
	SD	11.62	10.45	
Resignation	Mean	50.55	54.49	1.60 ^{NS}
	SD	8.28	10.16	
Aggression	Mean	53.57	53.05	0.21 ^{NS}
	SD	9.43	9.48	
Total Frustration	Mean	49.48	55.49	2.19*
	SD	10.72	10.50	

NS: Not significant. *Significant at 0.05 level.

The table no 02 shows means, standard deviations and ‘t’ value of the male and female students of Traditional education on Frustration. The Regression, Resignation and Aggression mode of Frustration there is no significant difference between female students of Traditional education and male students of Traditional education. The obtained ‘t’ value for the mean difference are respectively 1.76, 1.60, and 0.29. On the Fixation mode of Frustration the female students of Traditional education have higher mean score of 53.68 than the male students of Traditional education (M = 47.11). The obtained ‘t’ value for the mean difference is 2.30, which is significant at 0.05 level. Total Frustration the female students of Traditional education have higher mean scores of 55.49 than the male students of Traditional education (M = 49.48). The obtained ‘t’ value is 2.19, which is significant at 0.05 level. This shows that the female students have higher Frustration than the male students of Traditional school.

Frustration Level of High School Students among Their Gender

Table no 03: Means, standard deviations and ‘t’ value of the male students of Montessori and Traditional education on Frustration.

Frustration		Sample Group (N=60)		
		Male students of Montessori education (N=30)	Male students of Traditional education(N=30)	‘t’ values
Regression	Mean	49.65	54.53	1.21 ^{NS}
	SD	11.56	9.77	
Fixation	Mean	47.11	53.68	1.04 ^{NS}
	SD	11.62	10.45	
Resignation	Mean	50.55	54.49	2.38*
	SD	08.28	10.16	
Aggression	Mean	53.57	53.05	1.01 ^{NS}
	SD	09.43	9.48	
Total Frustration	Mean	49.48	55.49	1.11 ^{NS}
	SD	10.72	10.50	

NS: Not significant. *Significant at 0.05 level.

The table 03 shows means, standard deviations and ‘t’ values of the male students of Montessori and Traditional education on Frustration. On Resignation, Fixation and Aggression mode of Frustration there is no significant difference between the male students of Montessori and Traditional education. The obtained ‘t’ value for the mean difference are respectively 1.21, 1.04 and 1.01 which is not significant level. The Resignation mode of Frustration the male students of Traditional education have higher mean score of 50.55 than the students of Montessori education (M = 44.95). The obtained ‘t’ value for the mean difference is 2.38, which is highly significant at 0.05 level. On the total of Frustration there is no significant difference between the male students of Montessori and Traditional education. The obtained mean scores are 46.65 and 49.48 respectively. The ‘t’ value obtained for the mean difference is 1.11, which is not significant.

Frustration Level of High School Students among Their Gender

Table no 04: Means, standard deviations and ‘t’ value of the female students of Montessori and Traditional education on Frustration.

Frustration		Sample Group (N=60)		
		Female Students of Montessori education (N=30)	Female Students of Traditional education (N=30)	‘t’ value
Regression	Mean	49.46	54.53	2.22*
	SD	07.77	09.77	
Fixation	Mean	49.32	53.68	1.82
	SD	07.89	10.45	
Resignation	Mean	50.15	54.39	1.64
	SD	09.71	10.16	
Aggression	Mean	42.27	53.05	4.79**
	SD	07.86	09.48	
Total Frustration	Mean	48.39	55.49	2.98**
	SD	07.73	10.50	

* Significant at 0.05 level. ** Significant at 0.01 level.

The table no 04 shows means, standard deviations and ‘t’ value of the female students of Montessori and Traditional education on Frustration. The Fixation and Resignation mode of Frustration there is no significant difference between the female students of Montessori and Traditional education. The obtained ‘t’ value for the mean difference are respectively 1.82 and 1.64 which is not significant. The dimensions Regression and Aggression of frustration the female students of Traditional education have higher mean score than the female students of Montessori education. The obtained ‘t’ value for the mean difference are respectively 2.22 which is significant at 0.05 level and 4.79 which is highly significant at 0.01 level. On the total of Frustration the female students of Traditional education have higher mean score of 55.49 than the female students of Montessori education (M = 48.39). The obtained ‘t’ value is 2.98 which is highly significant at 0.01 level. This shows that the Traditional education students have higher Frustration than the students of Montessori education.

SUMMARY

The present study is an attempt to know the level of frustration of the high school students among their gender in relation to their Montessori and Traditional method of education. The sample of the present study consisted of 120 high school children including both male female. Of them, 60 students (30 male and 30 female) selected from Montessori method school and 60 students (30 male and 30 female) were selected from Traditional. For measuring frustration used the Frustration Scale developed and standardized by Chauhan & Tiwari (1972).

CONCLUSIONS

- There is no significant difference on frustration between the male students of Traditional education and Montessori education.

Frustration Level of High School Students among Their Gender

- The female students of tradition education have significantly higher level of frustration than the female students of Montessori education.
- The male students of Montessori education have significantly higher frustration than the female students of Montessori education.
- The female students of Traditional education have significantly higher frustration than the male students of Traditional education.

LIMITATIONS OF THE STUDY

- More than one school in each of the category of Montessori and Traditional method of education should have been taken for the study.
- The sample size is smaller in each of the subgroups.
- Instead of purposive sampling other methods of randomization should have been adopted.

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Improving the Efficiency Learning Through Adapt the Teaching Style to the Learning Style

Costică Lupu^{1*}

ABSTRACT

Education in recent decades has focused on the debate over adolescent affection which has a great influence on the mind. Many studies have shown that teachers adapt the teaching to student learning style can improve learning efficiency. To do this study we focus on a sample of 124 students aged 14 to 16 years, including 84 girls and 40 boys (from five classes IX from different profiles) at the National Pedagogical College "Stefan cel Mare" of Bacău, 5 mentors teachers and 15 students participated in educational practice conducted by the Department of teacher Training at the "Vasile Alecsandri" University of Bacău.

The paper starts from the following assumption: if adolescent affection has a great influence on his intellect, then learning is strongly influenced by the emotional state that is mastered.

In the present research, the research hypothesis is considering the implementation of steps to the observation of the behaviour in high school and its subsequent impact on the adolescent behaviour.

The hypothesis arising from the research objectives: - establishing strategy analysis approaches for achieving positive affective education in high school; - create a systematic observations of how education can be found affective steps a day program teaching practice;- analysis, data processing and presentation of observational research methods to realize affective education by infusional approach.

The result shows that it takes a positive affective approach to education in high school and affective state of students is of paramount importance in expressing interpersonal cognitive, communicative, cooperative or competition within the school group they belong. Therefore, depends in particular on how the individual is impressed, moved, affected by what is taught, what you perceive this to affect its relations with others, its role busy group and school reality.

Keywords: *Observational Research, Mental Phenomena, Emotionality, Learning, Intellect.*

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Although distinct from one another, cognitive and emotional processes are closely interconnected. When emotional conflict generated by clashing emotions, feelings and passions is united with cognitive conflict, caused by the clashing of ideas and concepts, intellectual activity is enhanced. If emotionality decreases, reaching the state of indifference, the individual's ability to solve new problems also decreases.

These emotions, located at the emotional-intellectual level, are generated by competitive actions that occur in the school and social sphere. Most often than not, these trigger anxiety, frustrations, guilt. In school activity, there also occur envy, admiration, modesty, hypocrisy and suspicion. The school environment comprises, in fact, multiple stimulating and also traumatising factors caused by teachers, school syllabi, marks, students.

By looking into this topic we aim to answer two questions. Is shyness present at teenagers and to what extent do the emotional transformations undergone by teenagers impact their learning process? Along with the beginning of school, a child starts a new form of activity, undertaking the status of student that triggers relevant transformations at the level of the psychological processes and phenomena that regulate and stimulate learning.

The teenager's education revolves around and focuses on the idea of good and bad in relation to everything that the young person experiences. His entire development is strongly influenced by the very numerous communication messages, what is broadcasted on TV, newspapers, books and radio shows, as well as information on the Internet. The emotional experiences from the lessons on various educational disciplines achieve an increasingly complex nature.

Problem of Research

The research aims to identify the presence of shyness at teenagers and the factors impacting the learning process during adolescence. Conducting education with the aim of building positive emotionality at high-school students contributes to building proper behaviour towards learning.

The research hypotheses

The research relies on the following hypotheses:

- If the student has a high level of shyness, then his intellectual ability and emotional state are dominated by fear of failure.
- If the teenager's emotionality has particular influence on his intellect, then the learning process is strongly marked by the emotional state that he experiences.

The research objectives

Along with the beginning of school, a child starts a new form of activity, undertaking the status of student that triggers relevant transformations at the level of the psychological processes and phenomena that regulate and stimulate learning.

The hypothesis has generated the research objectives that guide and graduate the research activity:

- Establishing the strategy for analysing the processes for achieving emotional-positive education in high-school education;
- Conducting a systematic observation on the extent to which emotional education may be identified during the schedule of one-day teaching practice;
- The analysis, processing and presentation of the data from the observational research on how emotional education is achieved through the infusion approach.

THEORETICAL ASPECTS

Emotionality

In dealing with reality, man actualizes certain needs, interests, aspirations and ideals, internal stimuli of the human condition that are called motivational structures. Between motivation and the surrounding reality there occur confrontations and clashes whose effects are the very emotional processes.

The mental processes that reflect the relations between subject and object in the form of emotions are called emotional processes. Within emotional processes, the most relevant aspect is not the object itself but the meaning attributed by the object to the subject. That is why, one and the same object generates different emotional states at different people.

Emotionality does not have specialized operations and tools like in the case of thought and imagination, but it is expressed as a tension of the organism, resulting in attraction-repulsion, search-oscillation. Close interactions also exist between emotionality and motivation. Emotional processes are regarded as representing active reasons in progress, whereas reasons are nothing else but crystallized emotional processes (Dumitriu Gh., 2004, p.78).

The properties of emotional processes

The *polarity* of emotional processes consists of their tendency to gravitate between the positive and negative poles, occurring as a result of meeting or not meeting the differentiated needs and aspirations of individuals. Polarity may be of the following nature: pleasurable or unpleasant, stenic or astenic (states that enable or demobilize activity), tense or relaxed.

The *intensity* of emotional processes indicates the depth of the experienced emotion at a given moment. It relies on the emotional value of the object in relation to the subjects' needs and emotional capacity. Enhancing the intensity of emotional experiences is achieved not by repeating the stimuli but by changing the meanings of the emotional value of the object or person with whom we interact, (Lupu C., 2014).

The *duration* of emotional processes consists of their length in time, irrespective of whether the person or object that caused them are present or not. A feeling may last one year or a lifetime, an

emotion may last several seconds or several hours, the fear and horror related to an accident may persist even after the danger is gone, love persists even if the loved person is gone.

The *mobility* of emotional processes is expressed as the accelerated transition within the same emotional state (from one stage to another), or as the transition from one emotional experience to another. Mobility should be distinguished from the fluctuation of emotional states that also imply a transition from one mood to another, however without any reason, without being required by some objective or subjective demand, as in the case of mobility.

The *expressiveness* of affective processes consists in their ability to become externalized. The outer manifestation is achieved by means of certain exterior signs that are called emotional expressions (mimicry, panto-mimicry, vegetative changes, change of voice etc.). Emotional expressions have individual as well as social meaning, (Lupu C., 2013).

The classification of emotional processes

Primary emotional processes have a primitive, natural-spontaneous nature, are weakly organized and tend to escape conscious control. The main forms are: the affective tone of cognitive processes (they emotionally accompany every act of knowledge), emotional experiences of organic origin (generated by the good or bad functioning of internal organs), emotions (primitive emotional forms, impulsive, strong, very intense and violent, shortly lived).

Complex emotional processes enjoy a higher degree of awareness and intellectualization, are more easily controllable and overlap learning to a higher extent. The main forms are: current emotions (shortly lived, active, intense, caused by distinct traits of objects, namely: joy, sadness, pleasure, disgust), higher emotions (connected more to an activity than the individual conducts than to objects and imply evaluations), emotional moods (diffuse feelings with variable intensity and relative duration that may turn into character traits), (Cristea S., 2003).

Higher emotional processes are characterized by a high degree of organization and value relation and are located at the level of personality. The main forms are:

- *Feelings* are intense emotional experiences, have a long duration, are relatively stable, characteristic of humans and socially-historically conditioned. The association of feelings is not haphazard, but follows a series of rules and laws. The French psychologist Theodule Ribot asserted the existence of a *logic of feelings*. Feelings may be: - intellectual (curiosity, wonder, doubt, love for truth); - aesthetic (admiration, ecstasy); - moral (patriotism, duty); the feelings of the Ego (self-love, high or low self-esteem, anxiety and hope); - human social and psycho-social feelings (vanity, dignity, sociability).
- *Passions* are feelings with a certain orientation, intensity, very high levels of stability and generality that engage the entire personality. They may fall into two great categories: **lucid or noble** (social orientation for truth, justice, progress) and **blind** (related to the ego).

- possessive passions: avarice, fanaticism; related to the other – jealousy, ambition; related to the world – passion for gambling), (Birch A., 2000).

The relation between emotionality and intellect at children during the learning process

The intellect is a system of relationships, activities and mental processes (intelligence, reason, memory, imagination, language) where thought is the central mental process that guides, leads and exploits all the other mental processes and functions. Intellectual efficiency depends especially on the individual's emotional state. Emotionality is characterized by affects, emotions, passions, moods and ensures the energetic support for the learning activity, (Şchiopu U. 1979, p 127).

In order to reach a maximum level of efficiency in the learning process, the subject needs to have, besides motivation, intelligence, purpose and proper emotional processes, the corresponding energy that may guide him towards knowledge and satisfaction. Without the emotional connection between what the exterior activity imposes (teacher, group, colleagues) and the students' internal conditions, the structuring of a constructive attitude and favourable, motivational relations in the socio-educational process is not possible.

The relationship between emotionality and intellect as a factor involved in the process of adaptation

There are two ways of learning: individual and group. They are both efficient, but they need different contexts to materialize.

In order for the individual learning process to yield high levels of performance, there should occur a conflict in the student's conscience, interests, intellectual ways and personal emotional state. On the one hand, the clash between the cognitive and emotional processes has to reach the optimum level in order to remove indifference or mental discomfort and trigger the student's motivation and ability. On the other hand, collective learning imposes the establishing of compatibility between the subjects' cognitive and emotional processes, in order to obtain maximum results. Therefore, the contextual factors, the relationships with the others, with the activity, situations and tasks have a relevant value in achieving performance in school learning.

METHODOLOGY OF RESEARCH

General Background of Research

To experiment the formulated hypothesis, there were applied active, relatively objective methods that enable the observation, recording and measuring of the subjects' reactions to different external stimuli, as well as a complementary system of methods that may enable the investigation of the phenomenon in terms of its general manifestations (within the group of students) and specific manifestations (in individual cases). The ones used most often were: - psychological and pedagogical tests; - questionnaires (applied individually).

Research on emotional manifestation

Research has shown that the concern for oneself represents the introductory stage of what we call *self-conscience*. The second convergent tendency is that of *inferiority*, manifested as shyness that is no longer caused by fear of strangers, but the need to protect and defend psychic intimacy from the interventions of others who could regard it as childish or may find it amusing.

For example, the case of a student, R. Lorena who, although an intelligent teenager with a high learning motivation, blushes and feels embarrassed when being heard by the teacher, becoming incapable of expressing the knowledge she has acquired during learning in a fluent manner and during the lessons, when she has something to say, she does it in a very discomfited way, stirring collective amusement. This occurs due to her shyness that springs from the fear of expressing herself in front of a large number of people, even if these are her classmates.

We should note the fact that in the written tests, she obtains optimum marks, therefore she cannot be placed in the category of mediocre students. The solution to Lorena's problem is achieving self-confidence and this may be done by means of internal factors (courage, will, attitude) as well as external factors (classmates, teachers, family, society).

J. Piaget has highlighted the parallelism between the evolution of logic and will that occur at the same time to give more coherence to thought and action. Constantly pursuing goals from different activities, organizing the effort made to conform to moral rules, the psychic instrumentation of making decisions generates more behavioural coherence, stability, unity and continuity (Piaget J., 1972).

For example, the case of a girl, S. Andreea who, although both her parents work abroad while she lives with her grandmother, manifests a particular interest towards school, having very good results. The cause of her motivation for school is her awareness of the need to learn in order to be able to aspire to a promising future. If during the younger grades Andreea got good school results because her mother imposed rules and a learning schedule on her now, when her mother can no longer watch her closely, Andreea finds her own motivation as a consequence of the habit of learning, of standing out among her classmates and in front of her teachers, of feeling herself useful and capable. Thus, Andreea is a lucid teenager, willing to assert herself, these qualities helping her to achieve performance in the learning process.

Sample of Research

To conduct the research and demonstrate the role of the relation between emotionality and intellect as a factor involved in the process of adaptation, the study was conducted on a sample of 124 students aged 14-16 years of age, 84 girls and 40 boys (from five 9th-grade classes with different specializations) from the "Ștefan cel Mare" National Pedagogical College of Bacău, with the participation of 5 teachers mentors and 15 students from the Pre- and In-Service

Improving the Efficiency Learning Through Adapt the Teaching Style to The Learning Style

Teacher Training Department from “Vasile Alecsandri” University of Bacău, during their teaching practice stage.

Instrument and Procedures

Besides these research methods, the 15 students also resorted to essential methods during the pedagogical observation stage from their teaching practice that they conduct as part of their pre-service teacher training within the Pre- and In-Service Teacher Training Department from “Vasile Alecsandri” University of Bacău: observation, conversation, analysis of evaluation samples, synthetic and analytical tables, graphical representations, surveys on the students’ preferences and interests related to learning.

Data Analysis

The research began at the start of the 2014-2015 school years and was completed in March 2015. The group of students investigated during the research represent social groups formed in the 9th grade. The students’ level of psychic development is heterogeneous. Most of the students come from families with preoccupations for forming, teaching and educating their children, maintaining a constant relationship with the school.

RESULTS OF RESEARCH

Analysing the data obtained during the 20 observed lessons, we were able to create the tables below in order to establish the percentage to which there were identified processes of behaviour observation in situations that involve emotional experiences from the total of observations, as well as the degree of manifestation, their frequency according to the applied criterion and their graphical illustration:

Table 1. Processes observed and the number of lessons.

Lessons during which there were identified processes of behaviour observation	15
Lessons during which there were not identified processes of behaviour observation	5
Total	20

Fig. 1. The percentage of the identification of processes of behaviour observation

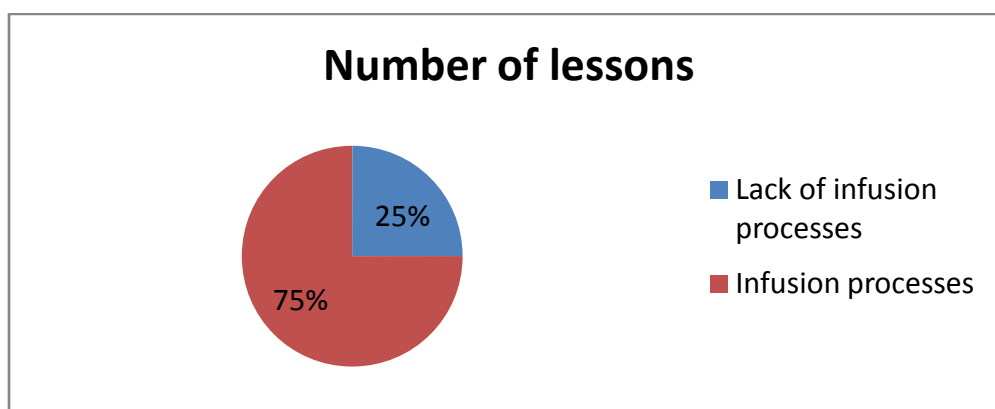


Table 3. The degree of manifestation and the frequency according to the applied criterion

The applied criterion	Degree of manifestation	Frequency
Infusion through contents	Very high degree	7
	High degree	4
	Average degree	2
	Low degree	2
	Very low degree	2
Infusion through images/ materials from nature	Very high degree	5
	High degree	4
	Average degree	0
	Low degree	0
	Very low degree	0
Infusion through actions	Very high degree	0
	High degree	3
	Average degree	3
	Low degree	0
	Very low degree	0
Lessons observed that have no behaviour related message	_____	5

Analysing the table above, we may find the weight of each analysed criterion (the infusion of the processes of observing intellectual ability and emotional state through contents, images/ materials from nature), according to their degree of manifestation (very high degree, high degree, average degree, low degree, very low degree), as shown in the graphs below:

Fig. 2. The degree of infusion of the processes of building intellectual ability and emotional state through contents

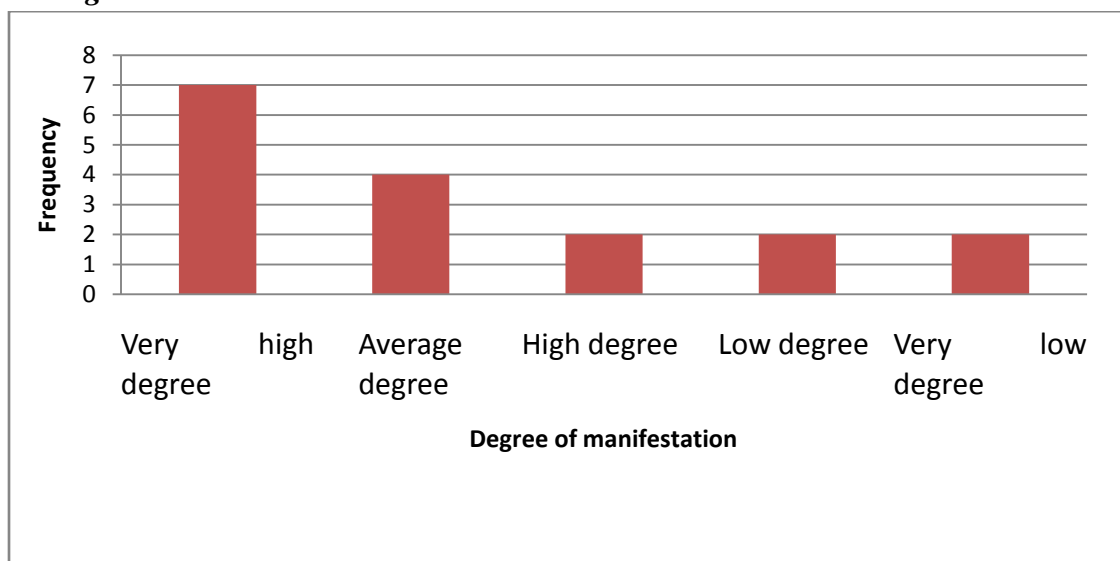


Fig. 3. The degree of infusion of the processes of building intellectual ability and emotional state through images of/ materials from nature

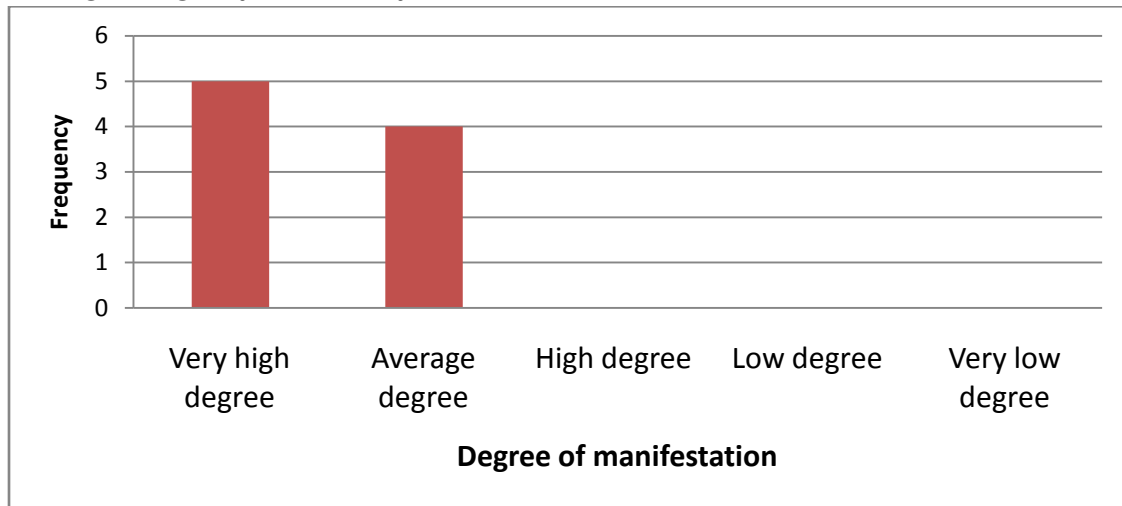
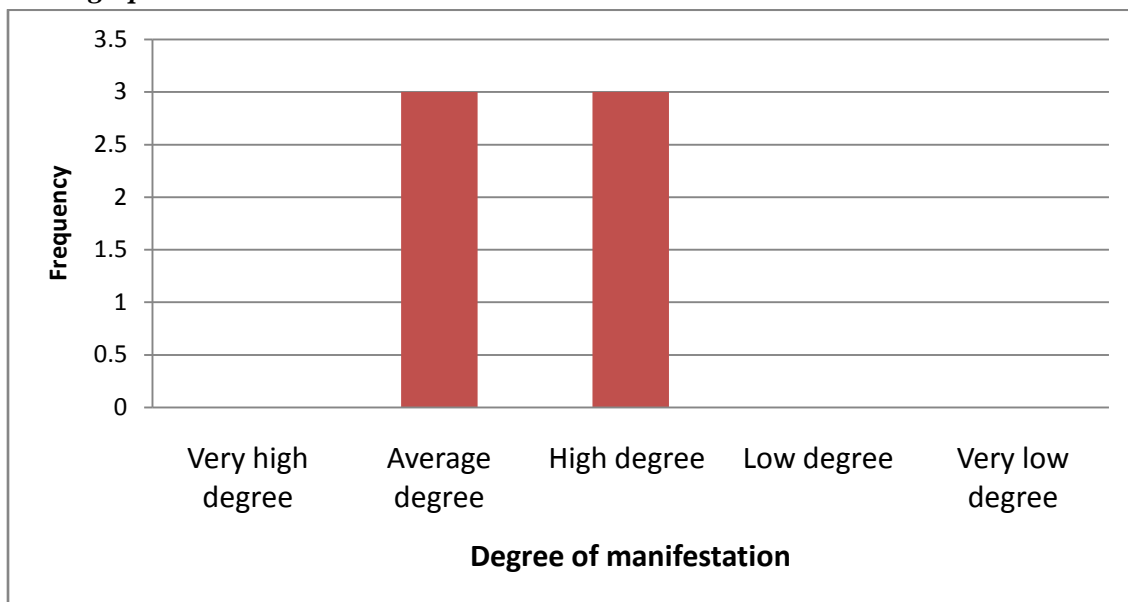


Fig. 4. The degree of infusion of the processes of building intellectual ability and emotional state through practical actions



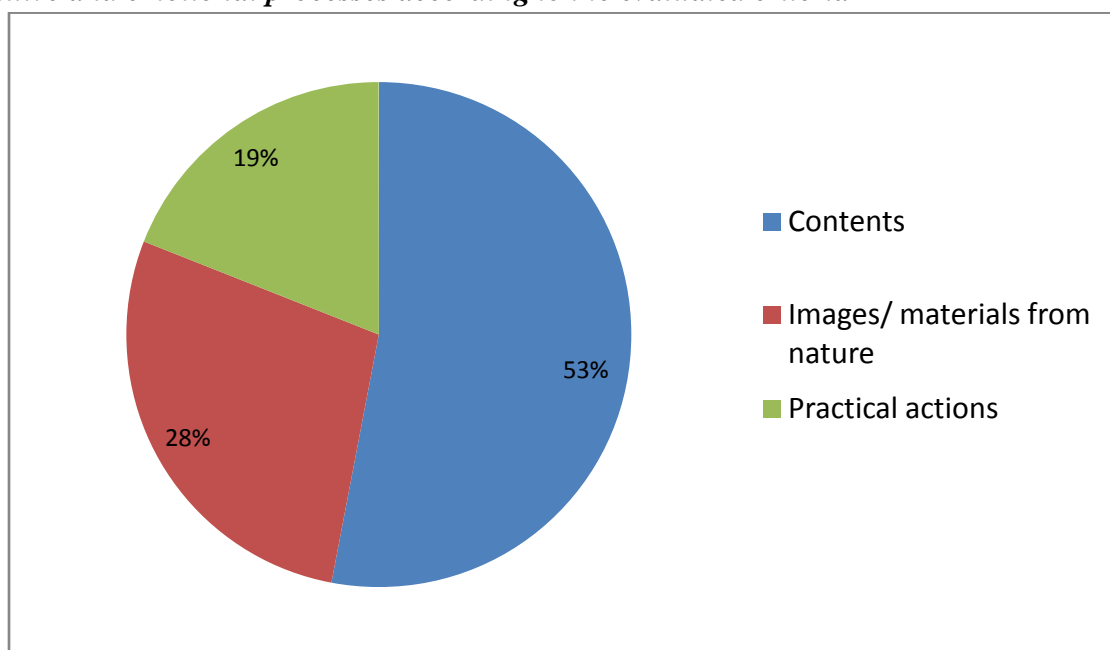
It is interesting to note the fact that there are processes of building intellectual ability and emotional states occurring simultaneously during several stages of a lesson, as well as the fact that a stage of a lesson may contain messages infused both through contents and images/ materials from nature or practical actions.

Comparing the percentages according to the criteria of evaluation and the percentages according to curricular areas (only for those where there was conducted the observation of the processes of intellectual education and emotional state), we may draw the following tables:

Table 4. Percentage of the infusion processes in the learning activity of the cognitive and emotional processes of the subjects according to the applied criteria

Applied criterion	Frequency
Contents	17
Images/ materials from nature	9
Practical actions	6
Total	32

Fig. 5. The percentage of the infusion processes in the learning activity in relation to the cognitive and emotional processes according to the evaluated criteria

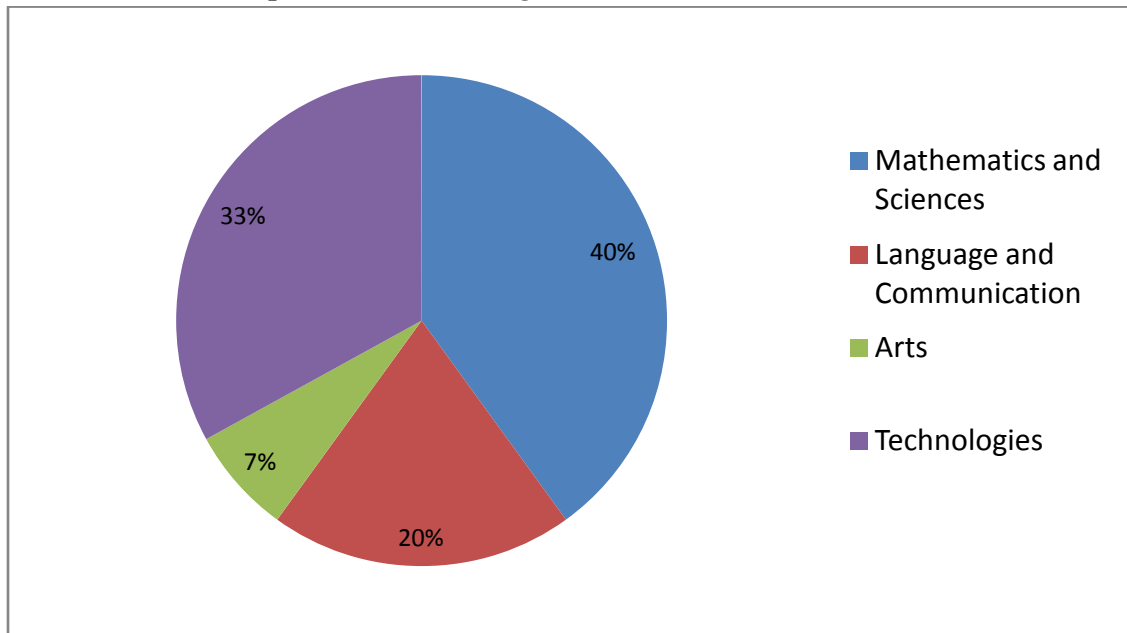


Analysing the tables above we may observe the obviously greater percentage of the infusion of the processes of ecological education through contents compared to the infusion through images/ materials from nature and actions, as well as of the area of Mathematics and Sciences compared to the other areas observed, as shown in the graphs below:

Table 5. Percentages of the infusion processes in the learning activity of the subjects' cognitive and emotional processes according to the criterion of curricular areas

Curricular area	Frequency
Mathematics and Sciences	6
Language and Communication	3
Arts	1
Technologies	5
Total	15

Fig. 6. The percentage of the infusion processes in the learning activity in relation to the cognitive and emotional processes according to curricular areas



CONCLUSIONS

As a result of the observations conducted during the 20 lessons and of the comparison, analysis and graphic representation of the data we may formulate the following conclusions:

1. from the total of 20 observed lessons, there occur infusion processes of education in the learning activity strongly affected by the emotional state in 15 lessons (75%), whereas for the remaining 5 lessons (25%) there were proposals to achieve it;
2. most of the processes were approached by means of the contents (53%), images/ materials from nature being used only in 28% of them and practical actions only in 19%;
3. most of the processes occur within the area of Mathematics and Sciences (40%), followed by Language and Communication (33%), Technologies (20%) and Arts (7%) (we should mention the fact that only lessons belonging to these curricular areas were observed due to the teaching-practice day that was established to be Friday);

Therefore, emotional processes have a particular impact upon the intellect, making it oscillate between progress and regress according to emotions.

Observing the behaviour in situations that contain emotional experiences involved a sample of 120 teenagers, aged 15-17, students in the first year of high-school from “Ion Ghica” Economic College of Bacău and yielded the following results:

80% of the students have emotional experiences normal for their age (positive events have an organisational effect, the experiences being intense but stable, not dominating the teenagers’

behaviour, the negative events have the effect of producing chaos, the experiences also being intense but fluctuating and not dominant for the teenagers), whereas the answers given by 20% of the students show that these have an abnormal behaviour both during positive and negative events in their life.

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A Survey Exploring PMS Awareness Trends in Indian Women and a Review of Ways to Harmonize Psycho - Physiological Stress of Premenstrual Syndrome Practicing Yoga Asanas

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ABSTRACT

Background: Menstruation has been considered as a taboo which made it difficult for women to discuss and voice out their concerns, creating a void in understanding the vitality of menstruation for a healthy womanhood. **Purpose of the Study:** To investigate level of awareness on PMS among educated women in Indian society and to communicate that it is time that women accept and discuss about menstruation as a natural process, and indulge in psycho-physiological activities such as yoga to learn to manage such conditions. **Methodology:** A survey was conducted on 305 females aged between 14-31 years. The subjects were asked to write what do they understand by PMS and their level of awareness was assessed based on the responses provided. **Results & Findings:** Most of the subjects were not aware of PMS, very few gave either an inappropriate or a correct answer. **Conclusion:** It has never been ok to speak about menstruation in India. The lack of awareness leads to lack of hygiene and lowers the confidence level in women. Yoga plays a vital role by making it convenient for women to harmonise the psycho-physiological trauma before, during and after menstruation. It high time that we in Indian accept menstruation as a sign of good health and not a curse and it is ok to talk about it.

Keywords: Premenstrual Syndrome (PMS), Taboo, Menstruation & Yoga, Menstrual Awareness.

A look at major religions of the world shows that, without exception, they have placed restrictions on menstruating women. Judaism, Christianity, Islam, Hinduism, and Buddhism have all made statements about menstruation and its negative effect on women, leading to prohibitions about physical intimacy, cooking, attending places of worship, and sometimes requiring women to live separately from men at this time. Yet there are many religions which, to this day, hold primitive ideas and beliefs regarding this common phenomenon. In India as well menstruation has been considered as a taboo which made it difficult for women to discuss and voice out their concerns, creating a void in understanding the vitality of menstruation for a healthy womanhood.

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What is Menstruation and it's Phases?

Menstruation is a natural monthly cycle associated with reproduction in humans and other mammals during which vaginal discharge and psycho-physiological discomfort occurs. The discharge consists of blood and cells which sheds from the lining of the uterus. The bleeding can last from two to seven days and signifies that no conception has taken place. The main hormones involved in controlling menstruation are estrogen and progesterone. Menstruation is experienced by women between puberty and menopause and can start between the age of 8 and 18 and last until ages 40 to 60 years. The menstrual cycle on an average is about 28 days, though it can vary considerably from one individual to another.



Four Phases of Menstrual Cycle

The menstrual cycle can be divided into four different phases - bleeding phase, follicular phase, ovulation and the luteal phase. Each phase of the menstrual cycle has a different function and are regulated by several hormones, which can explain the variations in cycle length.

Bleeding phase

The bleeding phase lasts from the first day of the period to the last day of the period. During this phase the endometrium (lining of the uterus) layers shed as menstruation and an egg starts maturing in the ovary.

Follicular phase

The follicular phase lasts from the last day of the period to the day of ovulation. During this phase, the body prepares itself to accept and support a pregnancy. The endometrium grows and thickens, and the vaginal environment also changes in order to become more sperm friendly. In the ovaries the egg/ovule matures and develops.

Ovulation

Ovulation is the key event of the menstrual cycle. In each cycle, only one egg/ovule is released and can only be fertilized for up to 48 hours. It is important to accurately identify when the ovulation begins if trying for a baby in order to maximize your chances of getting pregnant.

Luteal phase

The luteal phase is the final phase of the menstrual cycle and lasts from the day of ovulation to the last day before the next period. It is also the phase where the PMS start to occur. If pregnancy occurs, the embryo will implant itself in the endometrium during this phase if not, it starts to break down and is eventually sloughed off: this is menstruation.

What is Premenstrual Syndrome ?

Premenstrual Syndrome (PMS) involves a variety of emotional symptoms, with or without physical symptoms tied to a woman's menstrual cycle, also called as premenstrual tension or PMT. Medical definitions of PMS are limited to a consistent pattern of emotional and physical symptoms occurring only during the luteal phase of the menstrual cycle that are of "sufficient severity to interfere with certain aspects of life". The specific emotional and physical symptoms attributable to PMS vary from woman to woman, but each individual woman's pattern of symptoms is predictable, generally occurs around seven days prior to the start of the menstrual period, and vanishes either shortly before or shortly after the start of menstrual flow. Two to ten percent of women have significant premenstrual symptoms that are separate from the normal discomfort associated with menstruation in healthy women. Though bothersome, these symptoms are usually not severe enough to interrupt a normal lifestyle. Most women who experience PMS symptoms cope with them at home and very few may seek medical care for any severities. These symptoms affect the following: Mood: Anxiety (nervousness, mood swings, irritability, depression, forgetfulness, confusion, insomnia, hostility), Behavior (Cravings for sweets, increased eating, crying, poor concentration, sensitivity to noise, changes in alcohol tolerance), Physical functions (Headache, heart palpitations, fatigue, dizziness, weight gain, bloating, breast swelling and tenderness, constipation, or diarrhea)

General Practices used to Harmonize PMS

Cultures across the world view the monthly periods differently. Women across the world cope differently from warm water bags to comfort the piercing cramps, to gentle rubs to ease the fatigued back. It's something that remains an inevitable part of womanhood. Some of the practices also include home remedies, medicines, physical activities, diet etc. e.g. indulging in at least 20 to 30 minutes of aerobic exercise daily throughout the month. If an individual tries to exercise to the point of perspiration it lowers the level of free-circulating estrogen present in the system. Exercise is both a stress reliever and mood enhancer, because it boosts the body's natural painkilling endorphins while also relaxing the muscles. Another such practice can be eating less salt throughout the month, and especially in the week before period. With more salt comes

A Survey Exploring PMS Awareness Trends in Indian Women and a Review of Ways to Harmonize Psycho - Physiological Stress of Premenstrual Syndrome Practicing Yoga Asanas

increased fluid retention, hence more bloating and also high-fiber foods help to escort surplus estrogen out of the body; loading up on whole grains like barley, oats, and whole-grain breads; vegetables; and beans, drink more water, cut out on cravings for sweets when PMSing.

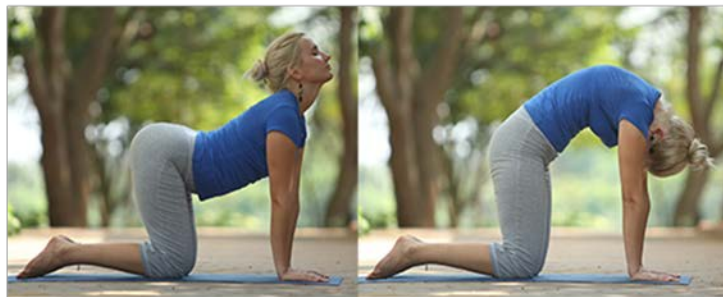
Yoga Asanas and PMS

Yoga is a 5000 year old Indian body of knowledge. Though many think of yoga only as a physical exercise where people twist, turn, stretch, and breathe in the most complex ways, these are actually only the most superficial aspect of this profound science of unfolding the infinite potentials of the human mind and soul. Yoga is a physical, mental, and spiritual practice or discipline that aims to transform body and mind. a part of which, including breath control, simple meditation, and the adoption of specific bodily postures, is widely practiced for health and relaxation.

There are simple ways to ease the physical changes and psychological swings. Yoga and meditation help in relaxing the body and mind. It helps to harmonize the left and right hemispheres of the brain, which correlate to the logical and emotional sides of one's personality.

There are proven benefits of yoga for PMS and menstrual pain. Several yoga asanas (positions) are proven to ease menstrual pain. It can also help the mind and body adapt to stress, anxiety and depression, making one feel relaxed and calm. It is best to practice gentle postures that help assuage the discomfort. Meditation allows the mind to relax and subsides any emotion and the general postures help to ease specific aches and some breathing techniques which prepares an individual to cope efficiently with their monthly cycles. Some of the asanas that help reducing the effects of PMS are:

Cat pose/Bidalasana



Also called marjari asan, this posture tones and relaxes the spine and abdomen.

Cobra pose/Bhujangasana



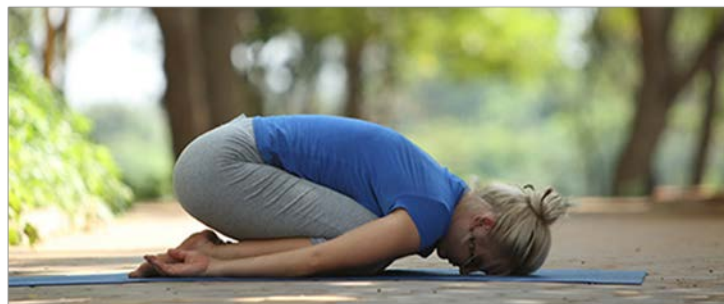
Great for blood circulation and relaxing the back.

Fish pose/Matsyasana



Stretches the chest and neck and great for releasing tension

Child pose/Balasana



Calms the nervous system and soothes the back.

Bow pose / Dhanurasana



It is ideal for menstrual discomfort and removes fatigue.

Corpse pose / Shavasana



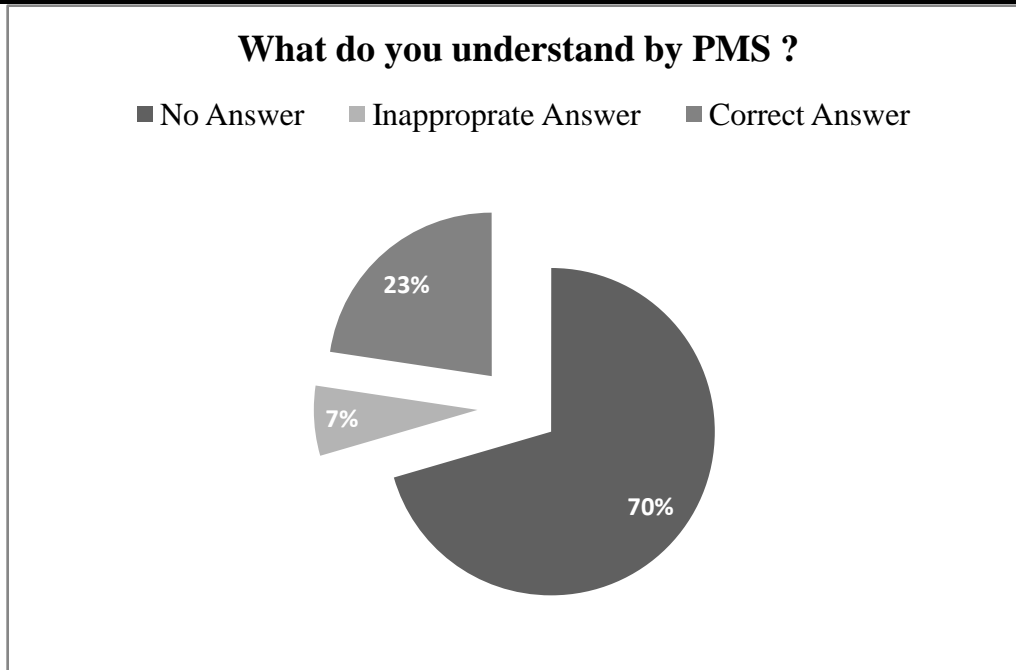
This posture brings a deep, meditative state of rest, which may help in the repair of tissues and cells, and in releasing stress.

The other asanas that can also be practiced are: Wind relieving pose/Pawanmuktasana, Crocodile pose/Makarasana, Standing- forward bend/Padahasthasana, Bridge pose/Setubandasana, Thunderbolt/Vajrasana, Locust pose/Shalabasana, Sitting forward - fold/Paschimottasana, Camel pose/Ustrasana, Noose pose/Pasasana, Pranayama.

METHODOLOGY

For the purpose of investigating awareness trends in Indian women a survey was conducted on 305 females from different states (e.g. Jammu & Kashmir, Haryana, Telangana, Karnataka, Delhi, Rajasthan etc.) aged between 14-31 years. The subjects were asked to write what do they understand by PMS and their level of their awareness was assessed based on the responses provided.

RESULTS AND DISCUSSION



Out of 305 females, 70% did not answer, 7% gave inappropriate answer and 23% were able to correctly answer to the given question.

CONCLUSION

"It is okay to talk about menstruation. Regular menstruation is a sign of good health not a curse of God"

It has never been acceptable to speak about menstruation in India, as it has from time memorable been considered as a taboo. The lack of awareness on this aspect not only leads to lack of skills to manage discomfort, or hygiene matters, but also lowers the confidence level of women. It is high time that women start accepting and discussing about menstruation as it is a natural process, and accept it as a sign of good health and not a curse. In today's world it is very easy to get any information through technology, making it easier for women who are unable to discuss such issues with other members of the society to gain clarity and knowledge on how to manage unspoken issues like menstruation in between the four walls of their homes or workplace. Here, the ancient art of yoga plays a vital role by making it even more convenient for women to harmonise the psycho-physiological trauma they undergo before, during and after menstruation as it can be practised anywhere be it the privacy of a room, with a group of friends and family or a session with a trainer. Indulging in physical activities such as swimming, cycling, running, yoga etc. can be helpful in bringing about a balance in the mind and body of an individual, sometimes to an extent that it can eliminate the need to depend on medications to overcome menstrual sickness.

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Behavioral Management of Pain: A Case Report

Mustafa Nadeem Kirmani^{1*}, Shabahat Bano², Firdos Jahan³

ABSTRACT

Pain results from complex interplay of biological, psychological & sociocultural factors. There are gamuts of medical and psychosocial factors which cause pain. The advent of technology and inordinate and improper use of computers and its components like key board and mouse are also associated with pain. It has been found both on the basis of research and clinically that software professionals often consult physicians for pain in different site of their body more specifically fingers, upper limbs, neck and forehead. This medical condition is known as Repetitive Strain Injury (RSI). It might result because of repetitive tasks, mechanical compressions or sustained or awkward positions. The patients of this medical condition often experience inflammation at different sites of body parts which are often involved in using computers. Unhealthy bodily postures are also associated with an issue. Pain is basically a sensory, emotional and subjective experience. High psychological arousal and cognitive set are significant factors which maintain or exacerbate the pain. In this paper, Behavioral management of pain specifically refers to brief cognitive, behavioral and mindfulness based psychological interventions in pain management. The current paper focuses on psychological factors related to pain and presented a case with RSI in holistic pain management and highlights the importance of incorporating biopsychosocial model in pain management for speedy recovery and better quality of life of patient.

Keywords: RSI, Pain, Biopsychosocial Model

Pain is a complex, personal, subjective and unpleasant sensory and perceptual experience that may or may not have any correlation with bodily injury or tissue damage. The International Association for the study of pain defines pain as “Sensory and emotional experience” (IASP, 1979). Emotional processes are central to the experience and expression of pain. Pain is the outcome of a complex interplay of influences, including psychological factors, which may operate both as risk factors in and consequences of pain. Psychological factors play an important role in the onset, severity, exacerbation or maintenance of the pain. During the past half century, psychological thought has moved away from linear to multicausal models of pain (Gamsa,

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1994). When a psychological causation of pain is postulated, multiple determinants of pain are usually also discussed. In this paper, behavioral management of pain refers to three psychological approaches (Cognitive behavioral approach, relaxation approach and mindfulness meditation) for the pain being used with the case being describe in the paper.

Cognitive and emotional factors are involved, fear, anxiety, attributions, beliefs, self-efficacy, sense of having control over pain, and coping strategies interact in complex ways in the development of the problem of pain. Signs of emotional distress are frequently the most clearly recognizable evidence that another person is experiencing pain. The most common emotional concomitants of pain are anxiety, fear and depression. Pain also involves gamut of emotional states like anger aggression and guilt. Pain also creates fear of avoidance whereby anxiety about activities exacerbating the pain stimulates the avoidance of those activities. Activity patterns and daily routines become disrupted while depression and catastrophizing thoughts are obstacles to recovery. Pain behaviors like groaning, crying etc. are reinforced by the social response they bring (attention, sympathy, legitimization of the behavior, and a temporary reduction of pain). Passive behaviors such as resting, reading, or watching television, which may be pleasant and associated with less pain, may become predominant. Pain behaviors may also buy time out of undesirable duties or activities.

Biopsychosocial Model of Pain

Engel (1977) gave ‘Biopsychosocial’ approach to medicine. The biopsychosocial model presumes some form of physical pathology or at least physical changes in the muscles, joints, or nerves that generate nonoceptive input to the brain. At the periphery, nonoceptive factors transmit sensation that may or may not be interpreted as pain. Such sensation is not yet considered pain until subjected to higher order psychological and mental processing that involve perception, appraisal and behavior. Perception involves the interpretation of nonoceptive input and identifies the type of pain (sharp, burning). Appraisal involves the meaning that is attributed to the pain and influences subsequent behaviors. The biopsychsocial model has been instrumental in the development of cognitive behavioral treatment approaches for chronic pain, including assessment and intervention.

Pain is ultimately a subjective, private experience which is invariably described in terms of sensory and affective properties. The affective components of pain include negative emotions especially depression, anxiety and anger.

Depression and Pain

Studies suggest that 40-50% of chronic pain clients suffer from significant depression (Banks and Kerns, 1996). Turks (1995) determined that individual’s appraisal of the effects of pain on their lines and of their ability to exert control over the pain and their lives mediated the pain-depression relationship. These clients who believed that they could continue to function and maintain control despite their pain did not become depressed.

Cognitive Factors and Pain

Cognition refers to beliefs, attitude, perception, knowledge and appraisal of any phenomenon. The term appraisal has come from the psychology of emotion. Appraisal means one's interpretation and understanding of a particular situation or one's own somatic/bodily processes. Cognitive factors are determined by one's indirect or direct experiences. Cognitions are either directly or indirectly related to pain perception. They either precipitate or maintain or exacerbate pain. Cognitive behavioral interventions for pain management work on modifying dysfunctional beliefs related to pain and help building effective coping skills and through healthy coping statements.

Chronic Pain and Cognitive Behavioral Interventions

Many medical conditions like osteoarthritis, pain associated with oncology issues, fibromyalgia and gamut of medical conditions lead to chronic pain in the patients. Chronic pain is not only one of the highly prevalent problem but also a costly issue for people suffering from it, health care system and society in general. Patients with chronic pain report impairments of multiple quality-of-life measures, including physical, social and psychological well-being. This mixture of physical, emotional and social factors often complicates managing patients with chronic pain. Treatment of chronic pain needs to address the physical pathology that initiated the chronic pain, as well as the important social and psychological sequelae of chronic symptoms. Although multiple medical, surgical and other physical interventions are available, patients with chronic pain continue to experience symptoms with significant distress and disability. As a consequence, patients experience frustration, emotional distress, feelings of helplessness, and an overall sense of demoralization as they continue their quest to achieve relief. Psychological treatments are often considered when medical interventions prove to be inadequate but often are not integrated with traditional medical approaches. Psychological approaches used alone or in combination with appropriate pharmacological strategies, should be an integral part of care plans for most chronic pain patients. Psychological interventions used in combination with appropriate drug regimen often improve overall pain management, enhancing therapeutic effects while allowing reduction of medication doses to prevent or diminish adverse drug effects. Based on empirical research, there are three most common types of psychological treatment of chronic pain include:

1. Cognitive Behavioral Therapy (CBT),
2. Relaxation Training, and
3. Mindfulness meditation

These approaches are often used together to provide simultaneous interventions at cognitive and physical levels. Research on cognitive behavioral interventions in chronic pain involves CBT, relaxation therapy, biofeedback, or some combination of the three. Generally, some form of CBT is combined with either relaxation training or biofeedback.

Assessment

Patients with chronic pain need to feel understood by those who are providing care to them. On the other hand, a therapist requires relevant and adequate information about the patient from a bio-psychosocial perspective to establish therapeutic goals. Therefore, a comprehensive psychological assessment is a prerequisite for CBT and other interventions. Before starting the therapy clinician should have understanding of the following:

1. The patient in his or her physical and social environment,
2. The patient's relevant strengths and weaknesses,
3. The evidence for any psychopathology,
4. The nature of the disease and treatment regimen, and
5. The coping skills being used by the patient,

Furthermore, a comprehensive Behavioral Analysis with reference to cognitive behavioral model of chronic pain will help in formulating specific goals and targets for behavioral change for a patient.

Cognitive Behavioral Therapy

CBT uses active, structured techniques aimed at modifying thoughts and behaviors and assisting individuals in developing a perspective of personal control and self-management of their pain.

The components of CBT include

- Reconceptualization of the pain experience as subject to personal control
- Identification of idiosyncratic beliefs about pain and pain treatment; through the influence of thoughts, feelings, and physical activities
- Training in a number of cognitive and behavioral coping skills and presentation and discussion of their rationale
- Practice and consolidation of these coping skills through imagery, rehearsal, role playing, and contingent reinforcement of their appropriate use.

Patient Education and Preparation for the Cognitive Behavioral Therapy

The importance of patient education cannot be overemphasized. Such education programs commonly include information about the nature of pain and how to use pain assessment instruments, medications, and non-pharmacological pain management strategies. For many patients, especially older persons, family caregiver education is also essential. Whether the program is conducted one-on-one or organized in groups, it should be tailored to patients' needs and levels of understanding. The use of suitable written materials and appropriate methods for reinforcement is important to the success of the program.

Introducing the cognitive behavioral model into treatment requires some preparation of the patient. Preparing the patient for CBT involves reconceptualization of pain experience and establishing a collaborative therapeutic relationship. It can begin with dispelling the myth or misconception that the patient has been referred to a mental health professional because the pain

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is “in your head”. One must always be careful not to imply that “the pain is all in our head” or not believable. It is helpful to present therapeutic techniques as methods to help the person manage the pain more effectively, improve the quality of life, and improve one’s mood even though the pain will still be there. Patients with chronic pain need to understand and accept that one of the main aims of CBT is to enable them to develop more effective coping strategies.

Explaining and discussing the gate control theory of pain with the chronic pain model along with examples form the foundation upon which the multifaceted intervention will be justified to the patient. Patients can be encouraged to explore links between cognitive behavioural factors and their pain. Active participation of patient in therapeutic program is essential for its success. It is helpful to explain that psychological pain management techniques differ from the many medical treatments the patient has likely undergone. In contrast to medical treatments, the patient must be actively involved in cognitive behavioural intervention program. Giving the rationale behind the various interventions (e.g., cognitive behavioral strategies, relaxation training, etc) to the patient also helps in the promotion of reconceptualization of pain experience as well as in his or her active involvement in the therapy.

Cognitive Restructuring

The cognitive behavior therapist and patient work together to identify specific patterns of thinking and behavior that underpin the patient’s difficulties. Treatment continues between sessions with homework assignments both to monitor and challenge specific thinking patterns and to implement behavioral change. The cognitive methods in therapy include:

- Detailed explanation and discussion of the cognitive model to develop understanding about connections between thoughts, affect, and behavior using ABCDE paradigm
- Keeping a diary monitoring situations, thoughts, and feelings to develop awareness about these (Box 1).
- Identifying connections between thoughts, affect, and behavior
- Identifying specific cognitive errors or distortions
- Examining evidence “for” and “against” the thoughts
- Coaching patients in challenging negative thoughts by questions and other rational techniques
- Learning to identify dysfunctional assumptions underpinning distortions
- Cognitive rehearsal of coping with difficult situations or use of imagery

Box 1: Thought Diary Date :

<i>Time Situation</i>	<i>Emotion or Feelings or mood (Rate degree, 0-100%)</i>	<i>Automatic Thoughts (Rate belief, 0-100%)</i>	<i>Alternative Responses (Thoughts) (Rate belief, 0-100%)</i>	<i>(Re-rate belief in automatic thought (0-100%) & emotion (0-100%)</i>

Challenging Dysfunctional Automatic Thoughts: Following key questions can be utilized to challenge dysfunctional or negative automatic thoughts identified:

- Is there an alternative explanation?
- What is the evidence that this thought is true ?
- What are the advantages and disadvantages of thinking this way?
- What is the best outcome, worst outcome, and most realistic outcome?
- What is the likelihood that this will happen?
- Am I asking questions that have no answer?

Patients are helped to learn application of these key questions to their own negative thoughts whenever they occur. They can select one or two questions that are useful in identifying the underlying logical problems in their thinking.

Reducing Catastrophizing and Promoting Appropriate Coping Strategies

Catastrophizing is one of the most common cognitive errors observed in chronic pain patients; therefore, it should be identified and specifically targeted. Catastrophizing patients are more likely to improve from self-instruction and verbal re-attribution, whereas non-catastrophisers benefit from interventions such as attention switching or distraction or attention control training (mindfulness). To reduce Catastrophizing, clinician should encourage the patient to recognize catastrophic cognitions and appreciate the unhelpful nature of these in coping with chronic pain as well as help them to develop alternative ways of thinking about it.

Generally, patients develop their own coping strategies to deal with their pain. The aim of coping strategy enhancement is to facilitate the implementation of appropriate active coping strategies, at the same time reducing the passive ways of coping. Before introducing new coping strategies, effectiveness of existing coping strategies should be analyzed. Use of particular strategies is often associated with patient's pain representations and pain control. If a patient believes that pills can alleviate pain, he may overuse medication and underuse the strategies related to psychosocial factors. Training in cognitively based coping strategies increases coping attempts, decreased negative thinking and lower tendency to report pain. Patients can test out which strategies are most effective for them. Coping strategy intervention can be targeted at medication use if there is evidence that medication is being used erratically or contrary to medical advice.

Relaxation Training

Relaxation is defined several ways; as a psychophysiologic state characterized by parasympathetic dominance of multiple visceral and somatic systems; the absence of physical, mental, and emotional tension; the opposite of Canon's fight-or-flight response. Relaxation is a learned skill with the potential to offset the negative effects of physical and psychological stress and rebalance the body, mind, and spirit. This technique has been observed to assist the individual to respond to life's challenges in more healthy ways, bringing involuntary responses such as heart rate, blood pressure, respiration, blood flow to muscles, muscle tension, and

adrenalin secretion under voluntary control. Relaxation states allow the individual the opportunity to experience an inward focus of attention, an awareness of an altered perception of time and place, control of personal state of awareness, and a relaxed inner calmness or sense of a sacred healing space.

Relaxation Procedures

Jacobson's Progressive Muscles Relaxation (JPMR):

JPMR is performed by first tensing, and then relaxing, the muscles of the body, one group at a time. Muscle groups can be divided a number of different ways, but a common method is to use the following groupings:

- Hands and arms
- head, neck, and shoulders;
- trunk, including chest, stomach and back;
- thighs, buttocks, legs, and feet.

The patient lays or sits in a comfortable position, and then starts with the first muscle group, focusing on the feeling of the muscles and the absence or presence of tension.

Release-only Relaxation: Like progressive relaxation, release-only relaxation focuses on relieving feelings of tension in the muscles. However, it eliminates the initial use of muscle tensing as practiced in progressive relaxation, focusing instead solely on muscle relaxation. Release-only relaxation is usually recommended as the next step in relaxation therapy after progressive relaxation has been mastered.

Mindfulness Meditation: It refers to a family of techniques which have in common a conscious attempt to focus attention in a non-analytical way and an attempt not to dwell on discursive, ruminating thought. Such exercises vary widely and can involve sitting still and counting breaths, attending to a repeated thought, or focusing on virtually any simple external or internal stimulus. Vipassana or mindfulness meditation or therapeutic approaches based on it have received considerable attention in last two decades. In mindfulness meditation a 'choiceless' and non-judgmental awareness is achieved through practice of various kinds of procedures. The focus is to make both the mind and body relaxed. Clients are asked to pay attention to the incoming and outgoing breath, their thoughts, feelings and sensations. They are asked to be non-judgmental about their thoughts and experience bodily sensations and feelings and all kinds of mental events as they occur naturally without any kind of regulation. Mindfulness meditation has been found to be very useful in patients with chronic pain.

METHODOLOGY

Single case design was used in the current clinical work. Beck Depression Inventory (Beck, Ward, Mendelson, Mock & Erbaugh, 1961) was used to assess depression. Beck Depression Inventory (BDI) is a 21-item, self-report rating inventory that measures characteristic attitudes

and symptoms of depression. It is highly reliable and internal consistency ranges from 0.73 to 0.92 (Beck et al, 1988). Scores for each item range from 0 to 3; the total score is the sum of all responses.

Procedure

When the patient contacted the author, he was informed about various clinical and research issues like confidentiality of his responses, his anonymity will be maintained, psychoeducation about his medical condition, rationale of psychological assessment and the reasons of following a specific intervention, probable number of sessions and their frequency in a week, therapy related issues like fees, timing, set up where therapy will take place, duration of each session, issues related to postponement of session were discussed before the clinical work. Written informed consent was taken from him.

Case Illustration

A.P, 35 year old married Hindu male, studied upto B.Tech currently working as software engineer in a private company hails from Bangalore presented with chief complaints of low back pain, pain in fingers while using mouse, pain in neck, irritable mood, disturbed sleep and decrease interest and efficiency in work for the last 8-9 months with acute onset and progressive course with nil significant personal, past medical and psychiatry history. Treatment history revealed on and off using pain killers to wind off the pain. Premorbidly the patient was having overall optimal functioning. MSE revealed sad mood and the diagnosis of Repetitive Strain Injury (RSI) was made.

Beck Depression Inventory (BDI) was administered to evaluate symptoms of depression, its severity and to decide plan of management. The patient obtained a score of 13 on BDI and clinical interview and clinical judgment also ruled out depression.

The holistic management plan was formulated with different rehabilitation professionals besides clinical psychology interventions. The referral to physiotherapists was made to work on gross motor and dealing with ergonomic issues while referral to occupational therapists was made to work on fine motor issues.

Brief Summary of Sessions

The patient was referred to a clinical psychologist for pain management and management of other psychological issues if present in the patient. Total of *10 sessions* were conducted with the patient with approximately one hour duration twice a week on outpatient basis. In the first session, *working alliance* was developed with the patient and the idea of *collaborative work* was emphasized. *Confidentiality* and other therapy related issues were discussed. *Psychological assessment* was also planned for the next session to help understanding the patient's mood in terms of sadness. In the *second session*, *BDI* was administered and subsequent feedback was given to him in the same session. The third session was focused on *brief education of pain* and

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the interventions planned for reducing pain issues of the patient. The *fourth and fifth sessions* were focused on *Mindfulness intervention*. He was trained in practicing Mindfulness to work on pain issues. He was asked to use the technique approximately 20 minutes daily and even in day to day practice while doing different tasks. Self monitoring of pain through pain diary in terms of pain eliciting situations/thoughts, severity of pain, its frequency, duration and what the patient does to minimize the patient was done. The patient was also asked to keep monitoring “Painless /absent time”. In the subsequent *two sessions* (*6th & 7th*), *relaxation training* was also given to him through *Jacobson Progressive Muscular Relaxation* (*JPMR*) and *Applied Relaxation (release only)* procedures and to practice them at home along with Mindfulness practice. In the process of teaching these skills, feedback was continuously taken from him regarding his understanding of the techniques and their effectiveness. In the next *two sessions* (*8th and 9th*), the patient was trained in some components of cognitive behavioral interventions in the form of *Coping-Self statements*. The patient was trained in using effective coping statements in place of maladaptive coping statements. He was asked to use statements like

“I can control my pain to the extent possible” (Instead of” I can’t control my pain”)

“I have pain but still I am able to work as much as I can” (Instead of “I can’t work at all because of my pain”).

In the last and *10th session*, overall *clinical evaluation* of the patient was done in terms of pain reduction. He was asked to practice *Mindfulness*, *JPMR* and *applied relaxation* in the presence of the therapist. The patient reported *50-55% improvement* in his pain symptoms after the 10 sessions were over. There were some doubts which were clarified in that session. The patient was sensitized not to stop other professionals’ interventions unless asked by them. Brief discussion on the importance of using the techniques at home, *relapse prevention*, and *follow up session* was done.

DISCUSSION & CONCLUSION

CBT, relaxation training and mindfulness meditation has proven to be effective in reducing pain and disability when it is used as part of a therapeutic strategy for chronic pain. CBT addresses the psychological component of pain, including attitudes and feelings, coping skills, and a sense of control over one's condition. It can provide educational information and diffuse feelings of fear and helplessness. It can help a patient look at ways in which their attitudes contribute to inaccurate and unrealistic expectations, and can help them find a more realistic and balanced view of the problem. Relaxation approaches and biofeedback can help people in chronic pain lower their overall level of arousal, decrease muscle tension, control distress, and decrease pain, depression and disability. There is a strong need to incorporate biopsychosocial paradigm in clinical practice to further improve patient care and his/her quality of life.

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Construct of Psychological Preparedness and its Correlates

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ABSTRACT

Psychological preparedness is a term describing personal processes and capacity, including concern, anticipation, arousal, feeling, intentions, decision-making and management of one's thought feeling and actions (Reser& Morrissey, 2009). In current study to construe the phenomenon of psychological preparedness among adult for specific short term and long term life events, episodes and stages. Research questions: (a) What does psychological preparedness constitute, (b) What are its personality correlates, (c) Can psychological preparedness be educated/trained or imbibed. (d) What is its predictive validity and (e) what are the criterion (intra and inter situation). To answer these research questions a sample of 200 adult shall be taken and personality correlates like resilience, mobility and liability of the nervous system, self-efficacy, time perspective and Bhagavad Gita's concept Nishkam karma will be measured. A bilingual (Hindi & English) battery shall be prepared which can address questions and its psychometric properties shall be evaluated.

Keywords: *Psychological Preparedness, Resilience and Self-efficacy.*

Psychological preparedness is a term describing personal processes and capacity, including concern, anticipation, arousal, feeling, intentions, decision-making and management of one's thought feeling and actions (Reser& Morrissey, 2009). There has been less focus on individual psychological preparedness by psychologists so far. Psychological preparedness can assist people to feel more confident and more in control and to use rational thinking when he responds to situation. Most of the research in the area of psychological preparedness has been conducted in the area of disaster management.

In current research psychological preparedness has been taking as a general phenomenon of a person and an attempt has been made to construct items relating to psychological preparedness. To fulfill this purpose psychological preparedness has been divided into seven facets (1) Concern, (2) Anticipation, (3) Arousal, (4) Feeling, (5) Intentions, (6) Decision-making and (7)

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Management of thought feeling and action. These facets include person's cognitive, affective and temperamental aspects.



Psychological Preparedness and its seven facets

Concern

A matter that engages a person's attention, interest or care, or that affects a person's welfare or happiness.

Anticipation

Anticipation is a central motivating force in everyday life – 'the normal process of imaginative anticipation of, or speculation about the future. To enjoy one's life, one needs a belief in time as a promising medium to do things in, one needs to be able suffer the pains and pleasure of anticipation and deferral. Be aware or prepare for future events.

Arousal

Arousal is a physiological and psychological state of being awake or reactive to stimuli and a condition of sensory alertness, mobility and readiness to respond. Arousal is important in regulating consciousness, attention and information processing

Management Of Thought, Feeling And Action

Feel more confident and more in control and to use rational and clear thinking when responding to a situation.

Intention

In performing an action is his or her specific purpose in doing so, the end or goal that is aimed at, or intend to accomplish.

Decision Making

The thought process for assessing and choosing among several alternatives. A process that involves evaluating given information, making a judgment and based on these making a choice among several possible alternatives.

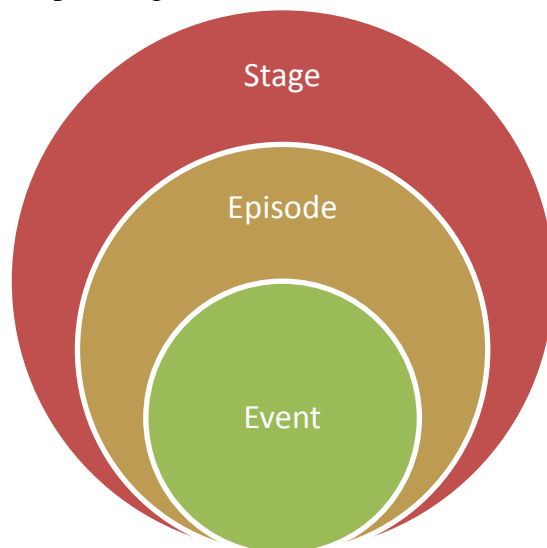
Feelings

In Psychology, feeling is used for conscious subjective experience of emotion. Feelings are also known as a state of consciousness, such as that resulting from emotions, sentiments or desires.

Psychological preparedness for what?

The next question is Psychological preparedness for what? To answer this question a person's general life situation can be divided into three parts (A) Life Events, (B) Life Episodes and (B) Life Stages.

- (A) **Life Events:** - Psychological preparedness for short term and specific period like: Exam, interview, short term journey, meeting etc.
- (B) **Life Episodes:** - Psychological preparedness for long term (for 10-15 days) like: Training program, a long journey, examination period, camps, workshop, planning for upcoming events etc.
- (C) **Life Stages:** - Psychological preparedness for long period like: Permanent job, Marriage, Adulthood, Career planning, financial investment etc.



Person's general life situation

OBJECTIVE

1. Identifying facets of Psychological preparedness.
2. Define levels of Psychological preparedness.
3. Construction of a tool for measuring Psychological preparedness for adult (Hindi).

METHODS

The present research is aimed at developing a scale for measuring psychological preparedness. In the concept of psychological preparedness is related to emotional readiness of an individual to react to any situation. According to American Psychological Society (APS, 2007), psychological preparedness involves “processes and capacities such as knowledge, anticipation, recognition, thinking, feeling, decision making and the management of one’s own thought, feeling and actions.”

Since psychological preparedness seems to be a phenomenon with such broad scope, it is a matter of serious concern that’s no scale has been developed to focus of individual’s psychological preparedness to deal with day-to-day matter. The present research is focus on filling this lacuna. To fulfill this purpose psychological preparedness has been divided into seven facets on the bases of above definition by Reser& Morrissey, 2009. (1) Concern, (2) Anticipation, (3) Arousal, (4) Feeling, (5) Intentions, (6) Decision-making and (7) Management of thought feeling and action.

The next step was to operationally define all seven facets of this definition. An attempt was make to measure these facets along three dimensions of Life events, Life episodes and Life stages.

Item construction

Each facet was dividing along the above mention three dimensions of life situation for each dimension four items were constructed keeping in mind typical situation faced by all individuals in day-to-day life. For each life dimension two positive and two negative items were constructed. For each item responses had to be marked five point scale “Strongly Disagree”, ”Disagree”, ”Neutral”, “Agree” and “Strongly agree”

RESULTS AND DISCUSSION

To achieve the purpose of construction a tool for measuring psychological preparedness 86 items were constructed. After construction of items test were given to four experts (Professors of psychology) for rating each item on five-point scale. Average rating of each items showing on table-1. In this table average rating 1.25 is given for 8 items, 1.50 is given for 12 items and 2.00 is given for 18 items.

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Table-1, Average rating of each item

	Item No.	Concern	Management	Intention	Feeling	Decision Making	Arousal	Anticipation
Event	1	1.75	2.25	1.50	1.50	1.50	1.50	1.50
	2	2.00	2.25	2.75	1.50	2.00	2.00	2.50
	3	2.50	1.25	3.00	1.75	2.25	1.25	1.25
	4	2.00	2.25	3.50	2.50	2.75	1.25	3.00
	5			2.00				
Episode	1	2.00	2.00	2.00	2.75	2.00	1.50	2.00
	2	2.50	1.75	2.00	1.75	2.25	2.25	1.50
	3	2.25	3.00	1.25	1.75	1.75	2.00	2.25
	4	1.25	2.75	3.50	2.50	2.50	2.50	2.00
	5							
Stage	1	2.50	1.25	1.50	2.25	2.75	2.50	2.75
	2	1.25	2.00	2.00	1.50	2.25	1.75	3.00
	3	2.75	2.50	3.00	2.25	2.75	2.00	3.25
	4	2.00	1.50	2.75	1.50	1.75	2.50	3.50
	5					2.00		

Psychological preparedness and its personality correlates: -

Psychological preparedness and its personality correlates like Resilience, Mobility and liability of the nervous system, self-efficacy, Time perspective and Nishkam karma.

Resilience: -

Resilience has been divided as a universal capacity, which allows a person group or community to prevent, minimize or overcome damaging effects of adversity (Newman, 2004)

Mobility and Liability of nervous system: -

Strelau et al (1990) refers to mobility comprising of following five definitional components. A high mobile person: - (1) Reacts adequately to unexpected changes in environment, (2) Adapts quickly to new surroundings, (3) Passes easily from one activity to another, (4) Change mood lightly from positive to negative and vice versa, according to the meaning of the situation and (5) Refer situations which require different activities to be performed simultaneously. Uktomskii's (1937) defines Liability as the speed with which a psychological structure is able to pass from a state of rest to a state of excitation, and vice-versa, ready for the new response. Conceptually it seems that liability is a broader term, which may be inclusive of mobility.

Construct of Psychological Preparedness and its Correlates

Self-Efficacy: -

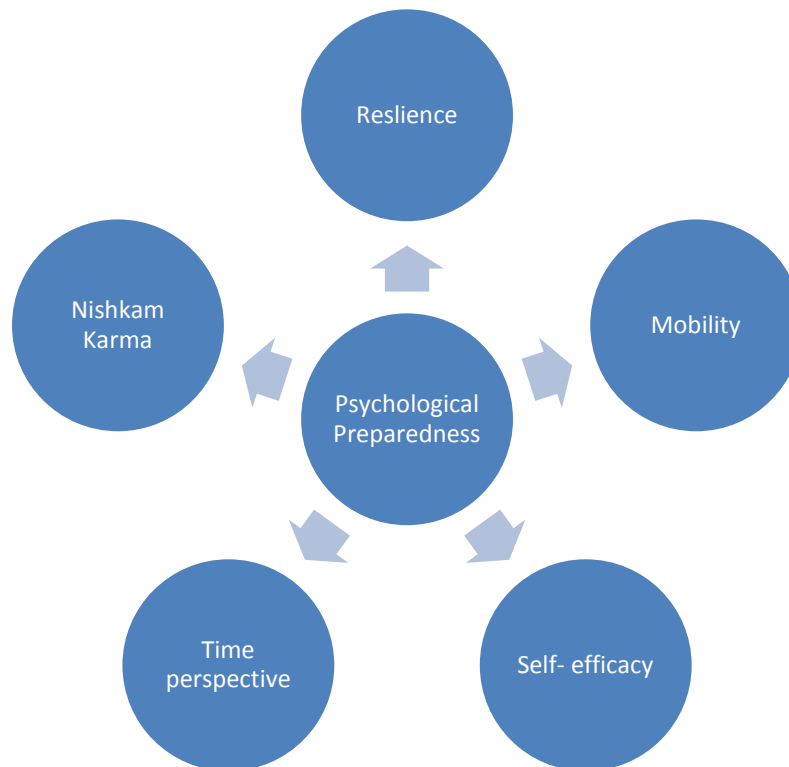
It is an expectancy belief (expectation) how competently one will be able to enact a behaviour in a particular situation. Our self-efficacy beliefs are the result of four type of information: - (1) Our experience trying to perform the target behaviour or similar behaviour (our past successes and failure), (2) Watching others perform that or similar behaviours (Vicarious experience), (3) Verbal persuasion (encouraging or discouraging performance) and (4) How we feel about behaviour (emotional reactions).

Time perspective: -

All the person, everywhere is oriented periodically toward the past, the present and the future. Lewin, 1951 the totality of the individuals vies of his psychological future and psychological past existing at a given time. Time orientation is a healthy sign different walk of life e.g. in business world, scientific world, socialization, planning a career, vocation as so on. The orientation may be seen as a characteristic of motivational process (Thomace, 1965)

Nishkam Karma: -

Nishkam karma or self-less or desire less action is an action performed without any expectation of fruits or results, and the central tenet of karma yoga path to liberation and stepping beyond personal goals and agendas while pursuing any action over greater good. Nihkam karma ha been variously explained as ‘Duty for duty’s sake’ and as ‘detached involvement’ which is neither negative attitude nor indifference.



Psychological Preparedness and its Personality Correlates

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Rape as a Continuing Weapon of Psychological Warfare, Suppression & Subjugation

Mr. Aniruddha Vithal Babar^{1*}

ABSTRACT

“Beyond the daily gun battles, women have been a powerful voice in the opposition in villages and towns across Syria. In response, the Syrian government is punishing women for delivering humanitarian assistance, participating in protests, and supporting the opposition by subjecting them to detention, torture, and sexual assault.”

- Liesl Gerntholtz, women’s rights director

Rape and sexual abuse is not just a by-product of war but has been used as a deliberate warfare strategy from time to time. The opportunistic rape and pillage of previous centuries has been replaced by rape used as a strategic combat tool. Women and girls are particularly targeted by the use of sexual violence, including as a tactic of war to humiliate, dominate, instill fear in, disperse and/or forcibly relocate civilian members of a community or ethnic group. This paper examines historical and contemporary instances wherein sexual violence, specifically rape, was used as a strategic weapon of psychological warfare in various types of conflicts. It further analyzes the cogency of sexual violence as a weapon by considering its physical and psychological effects on victims and the morale of targeted populations. Additionally, it scrutinizes the motivations and intentions that support the use of sexual violence. The intent of this paper is to identify the use of rape from psychological perspective in socio-political spectrums of different types of conflicts. This paper thus offers multidimensional psycho-socio-political analysis of sexual violence in general and rape in particular as a major weapon of war.

Keywords: Rape, Psychological Warfare, Violence, Women

“Rape is loss. Like death, it is best treated with a period of mourning and grief. We should develop social ceremonies for rape, rituals that, like funerals and wakes, would allow the mourners to recover the spirits that the rapist, like death, steals. The social community is the

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appropriate center for the restoration of spirit, but the rape victim is usually shamed into silence or self-imposed isolation.”

~Metzger (American Journal of Psychiatry, 1976)

Sex is understood as the biological difference between men and women. Even though this difference should not matter to how people are seen and treated, the distinction between both is assigned through by gender and does make a differenceⁱ. Gender violence is a term for wide range of violations, which consist of both the physical and the sexual, from example ranging from sexual assault in society to sexual abuse in prison. Women are disproportionately the victims of gender violence, which happens in different forms in different social contexts throughout the worldⁱⁱ. Rape is the most underreported crime in India. Rape is a type of sexual assault usually involving sexual intercourse or other forms of sexual penetration perpetrated against a person without that person's consent. The act may be carried out by physical force, coercion, abuse of authority or against a person who is incapable of giving valid consent, such as one who is unconscious, incapacitated, has an intellectual disability or below the legal age of consent.ⁱⁱⁱ The term rape originates in the Latin rapere (supine stem raptum), "to snatch, to grab, to carry off".^{iv} Since the 14th century, the term has come to mean "to seize and take away by force".^v In Roman law the carrying off of a woman by force, with or without intercourse, constituted "raptus".^{vi} In Medieval English law the same term could refer to either kidnapping or rape in the modern sense of "sexual violation".^{vii} The original meaning of "carry off by force" is still found in some phrases, such as "rape and pillage" or in titles, such as the story of the Rape of the Sabine Women or the poem The Rape of the Lock, which is about the theft of a lock of hair.

The Democratic Republic of the Congo (DRC) is accurately referred to as “the rape capital of the world”.^{viii} John Holmes, the under secretary general for humanitarian affairs for the United Nations has been reported saying, “the sexual violence in Congo is the worst in the world. The sheer numbers, the wholesale brutality, the culture of impunity – it’s appalling”.^{ix} With more than five million dead, tens of thousands of women raped all within the past decade, doctors and activists have called it an “epidemic.” Michael Van Rooyen, director of Harvard’s Humanitarian Initiative, has had experience in international disaster zones. He says, “even in a wartime setting, Congo is unusual and exceptional.” Such a reality is frightening and difficult to imagine, yet it is a reality many Congolese women have faced. This large-scale magnitude of sexual violence has potentially made eastern Congo the worst place on earth for a woman. If one take a case study of Congo Rape Victims, one can understand that the multidimensional reality of Rape. It was not only lust that prevailed, but something else as well, that is –The assertion of power.

The case of India is no different. The sexual violence has long been used as a tool of suppression and subjugation apart from uncivilized, immoral way to the forceful satisfaction of sexual urge. India, a nation which had Mahatma Gandhi as its role model of rectitude became so unbelievably violent and corrupt that the women can no longer be safe within their bodies. Gandhi who defeated the whites to save the browns by relying on non-violence is considered as the father of

the nation, but his values are being betrayed so easily that a woman is raped every twenty minutes^x in the world's largest democracy and even children of five years are subjected to rape.^{xi} According to the National Crime Records Bureau 2013 annual report, 24,923 rape cases were reported across India in 2012^{xii}. Out of these, 24,470 were committed by someone known to the victim (98% of the cases).^{xiii} According to 2012 statistics, New Delhi has the highest raw number of rape reports among Indian cities.^{xiv} India has been characterised as one of the "countries with the lowest per capita rates of rape".^{xv} The National Crime Records Bureau of India suggests a reported rape rate of 2 per 100,000 people, much lower than reported rape incidence rate statistics for many nations tracked by the United Nations.^{xvi}

The sexual violence against women in India has an angle of "social status" apart from biological sex and sociological gender. Dalit women suffer from severe limitations in access to justice and there is widespread impunity in cases where the perpetrator is a member of a dominant caste, above the Dalits in the caste system. Dalit women are therefore considered easy targets for sexual violence and other crimes, because the perpetrators almost always get away with it. For example, in India, studies show that the conviction rate for rapes against Dalit women is under 2% compared to a conviction rate of 25% in rape cases against all women in India. The 2009 report of the UN Special Rapporteur on Violence against Women contains an overwhelming number of accounts of Dalit women in India being raped and beaten by higher castes in the course of their daily lives, such as while working in the field, going to the market or doing domestic work.^{xvii} Certain kinds of violence are traditionally reserved for Dalit women: extreme filthy verbal abuse and sexual epithets, naked parading, dismemberment, being forced to drink urine and eat faeces, branding, pulling out of teeth, tongue and nails, and violence including murder after proclaiming witchcraft, are only experienced by Dalit women. Dalit women are threatened by rape as part of collective violence by the higher castes. The Devadasi system of temple prostitution is the most extreme form of exploitation of Dalit women. Dalit girl children are forced to prostitution. The majority of cases of violence against Dalit women are not registered. The lack of law enforcement leaves many Dalit women unable to approach the legal system to seek redress. Women are often also unaware of the laws and their ignorance is exploited by their opponents, by the police, and by the judiciary system. Even when cases are registered, the lack of appropriate investigation, or the judge's own caste and gender biases, can lead to acquittal.^{xviii} Considering the social dynamics of Indian society one can conclude that though the degree of collective sexual violence against women is similar irrespective of their caste and social status however, the social dynamics and motives that forms the basis of violence significantly differs.

Incidents of Rapes committed by Police, Paramilitary and Armed Forces of Nation compel us to look at Rape from different angle. Many incidents of Rape have come up from time to time wherein defense personnel were involved. In 1991, the 4 Rajputana Rifles unit are alleged to have entered the village of Kunan Poshpora in Jammu & Kashmir and raped between 30 and 100 women aged between 13 and 70.^{xix} In one well-publicized case, in May 1990 a young bride, Mubina Gani, was detained and raped by BSF soldiers while she was traveling from the wedding

to her husband's home. Her aunt was also raped. The security forces had also fired on the party, killing one man and wounding several others. The government claimed that the party had been caught in "cross-fire." After the incident was publicized in the local and international press, Indian authorities ordered the police to conduct an inquiry. Although the inquiry concluded that the women had been raped, the security forces were never prosecuted.^{xx} The rapes by Islamic militants have been reported since the Indo-Pakistani War of 1947. On 22 October 1947, Pashtun militants invaded Baramulla in a Pakistan army truck, and raped women including European nuns.^{xxi} During the 1971 Bangladesh war for independence, members of the Pakistani military and supporting Bihari and Razakar militias raped between two and four hundred thousand Bangladeshi women in a systematic campaign of genocidal rape.^{xxii} The writer Mulk Raj Anand said of the inhuman Pakistani army actions in 71' War, "The rapes were so systematic and pervasive that they had to be conscious Army policy, "planned by the West Pakistanis in a deliberate effort to create a new race" or to dilute Bengali nationalism". In March 1990, Mrs. M. N. Paul, the wife of a BSF inspector was kidnapped, tortured and gang-raped for many days. Then her body with broken limbs was abandoned on a road^{xxiv}. Extremist and Terrorist organisations such as Hizb-ul-Mujahideen, Jamiat-ul-Mujahideen and Harkat ul-Ansar have been accused of carrying out rapes.^{xxv} The Jammu Kashmir Liberation Front have been accused of ethnic cleansing by using murder, arson and rape as a weapon of war to drive out hundreds of thousands of Hindu Kashmiri Pandits from the region^{xxvi}. Human rights groups allege that the Indian armed forces under the protection of the Armed Forces (Special Powers) Act, 1958 have carried out a large amount of rapes in the Nagaland, Assam and Manipur provinces. In recent years, varieties of rapes have taken place during the communal riots. During the post 2002 Godhra train burning, in the certain parts of Gujarat, rape was carried out by rioters. Thirteen rape and assault cases were reported during the 2013 Muzaffarnagar riots.^{xxix} The different incidents of sexual violence cited herein above not only give a picture of human brutality but also shows us how alleged sexual violence was systematically used to as a psychological weapon of full-fledged war and civil armed conflicts to suppress and subjugate the target population. Hence, the subject of sexual violence should necessarily be studied in the light of three angles viz; Gender, Social Status and political-military strategic needs (War tactics).

HISTORY OF RAPE AS A STRATEGIC WEAPON OF WAR

*Women's lives and their bodies have been the unacknowledged casualties of war for too long.
~ Amnesty's 'Lives Blown Apart' report*

Specifically, rape and sexual torture are frequently used as weapons to demoralize the enemy; women are sometimes forced into "temporary marriages" with enemy soldiers. Women who are incarcerated may be subjected to sexual violence by prison guards and police officers. Other forms of sexual violence include, but are not limited to:

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1. Sexual slavery
2. Sexual harassment (including demands for sex in exchange for job promotion or advancement or higher school marks or grades)
3. Trafficking for the purpose of sexual exploitation
4. Forced exposure to pornography
5. Forced pregnancy
6. Forced sterilization
7. Forced abortion
8. Forced marriage
9. Female genital mutilation
10. Virgidity tests
11. Incest

However, In order to understand the genesis of Wartime Sexual Violence including Rape it is pertinent to take a look in the chambers of history throughout which, rape during war has been commonplace, even encouraged. Homer's *Iliad*^{xxx} opens with an argument between the Greek warriors Agamemnon and Achilles over possession of women seized during the Trojan War. In Biblical times, warriors also considered women spoils of war; they treated women as livestock, children, and other property in a conquered city. Biblical law told warriors that they "may take these as plunder ... and you may use the plunder the Lord your God gives you from your enemies." The rights of women during war apparently had made some progress since Homer's day, however; according to Biblical law, captive women who were physically attractive had to be wed before they could be raped. In ancient times, the law did not condemn rape and pillage if such actions were necessary as "a spur to the courage of troops." The winning side long ago discovered that rape was an effective battle strategy in the male-dominated world of war: 'Men of a conquered nation traditionally view the rape of "their women" as the ultimate humiliation, a sexual coup de grace. . . . Rape by a conquering soldier destroys all remaining illusions of power and property for men of the defeated side. The body of a raped woman becomes a ceremonial battlefield, a parade ground for the victor's trooping of the colors. The act that is played out upon her is a message passed between men-vivid proof of victory for one and loss and defeat for the other.' As one observer phrased this philosophy: "When I rape your woman, . . . I destroy your property. I insult you. I humiliate you. If I rape all your women, I defile an entire generation. And if I force your women to bear my children, I pollute your race."^{xxxi}

Rape has always been a weapon of war which can also be recognized as genocide and/or ethnic cleansing when committed with the intent to destroy, in whole or in part, a targeted group; however, rape remains widespread in conflict zones. The 1994 UN Declaration on the Elimination of Violence against Women (DEVAW) also recognized women in conflict settings as an especially vulnerable group, and it encompassed Gender Based sexual Violence in its definition of violence against women provided in Article 2. The Declaration defines violence against women as "any act of gender-based violence that results in, or is likely to result in,

physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life,”^{xxxii} which should be understood as including “physical, sexual and psychological violence perpetrated or condoned by the State, wherever it occurs.”^{xxxiii} There are other international legal instruments to prosecute perpetrators but this has occurred as late as the 1990s. However, until recently it was neglected as a crime worthy of prosecution on its own. In the twentieth century, the use of rape in war was documented in both WWI and WWII. The practice continued during the Vietnam War and in civil war between Pakistan and Bangladesh during the 1970’s. Rape as a weapon of war continues today. The rape of women and girls has been a brutal part of recent conflicts in Bosnia-Herzegovina, the Democratic Republic of Congo, Rwanda and Sudan and in too many other regions. The brutality took place despite the development and ratification of wide range international human rights instruments designed to address such degrading treatment both during peace time and in times of war. The trials at Nuremberg following WWII documented the use of rape as a weapon of war during that conflict. For example, the record described the German invasion of Russia this way: “Women and young girls are vilely outraged in all the occupied areas. In the Ukrainian village of Borodayevka, in the Dniepropetrovsk region, the fascists violated every one of the women and girls. In the village of Berezovka, in the region of Smolensk, drunken German soldiers assaulted and carried off all the women and girls between 16 and 30.”^{xxxv} It has also come to light that during WWII the Japanese army established front line brothels to service the Japanese Imperial Army. These 80,000-200,000 Asian women were sex slaves and were known as “comfort women.”^{xxxvi}

During the Nanjing Atrocities^{xxxvii} young and old women were repeatedly violated by Japanese Imperial troops. While definitive numbers are difficult to pin down because of the nature of the crime, tens of thousands of rapes were documented, witnessed, and reported. Philosophy professor Claudia Card expands upon the understanding of rape as a war crime by explaining the role rape holds in the crime of genocide. She explains: There is more than one way to commit genocide. One way is mass murder, killing individual members of a national, political, or cultural group. Another is to destroy a group’s identity by decimating cultural and social bonds. Martial rape [rape committed during war] does both. . . . If there is one set of fundamental functions of rape, civilian or martial, it is to display, communicate, and produce or maintain dominance. . . . Acts of forcible rape, like other instances of torture, communicate dominance by removing our control. She further continues by explaining that the violation involved in the crime of rape is intended to terrorize the victim and the nation being occupied, to destroy any community bonds that may exist, and to send a clear message of domination, humiliation, and power to both the victim and family members (particularly husbands, fathers, and sons, who may be unable to “protect” their wives, daughters, or children). Card states that rape can be used as a weapon of revenge and as a form of genetic or biologic imperialism. Professors John Roth and Carol Rittner expand upon this idea by explaining acts of rape resulting in unintentional pregnancy by the perpetrator group also can destroy a family’s solidarity by “imposing” themselves into future generations.^{xl} During WWI the German armies used rape as a part of the battle plan during the

invasions of Belgium and of France. As constitutional law professor J.H. Morgan explains: “outrages upon the honour of women by German soldiers have been so frequent that it is impossible to escape the conviction that they have been condoned and indeed encouraged by German officers.”^{xli} From the discussion so far we have understood that during war and armed conflict, rape is frequently used as a means of psychological warfare in order to humiliate the enemy. Kelly Dawn Askin observes that increasingly, the victims of war are civilians. An estimated forty-five million plus civilians died during World War II. Male and female civilians may be subject to torture, but many studies show that war rape is more frequently perpetrated on women than men.^{xlii} The incidents of wartime sexual violence occurred in a variety of situations, including institutionalized sexual slavery, wartime sexual violence associated with specific battles or massacres, and individual or isolated acts of sexual violence wherein the victims of war rape are usually “civilians”, a category first recognized in the 19th century. Although war rape of women is documented throughout history, laws protecting civilians in armed conflict have tended not to recognize sexual assault on women. Even when laws of war have recognized and forbidden sexual assault, few prosecutions have been brought. According to Kelly Dawn Askin, the laws of war perpetuated the attitude that sexual assaults against women are less significant crimes, not worthy of prosecution.^{xliii} War rape has until recently been a hidden element of war, which according to Human Rights Watch is linked to the largely gender-specific character of war rape – abuse committed by men against women. This gender-specific character has contributed to war rape being “narrowly portrayed as sexual or personal in nature, a portrayal that depoliticizes sexual abuse in conflict and results in its being ignored as a war crime.”^{xliv}

RAPE AS A STRATEGIC WEAPON OF WAR- PSYCHO-SOCIOLOGICAL ANALYSIS OF MOTIVATING FACTORS RESPONSIBLE FOR RAPE IN WARFARE

“Rape used as a weapon of war demonstrates that women in one sense are objects of men's transactions in this context: they are not violated as individual women, but as the nation's women: the attack on their sexuality is an affront to the national collective of men.”

~ Kjersti Ericsson, Rape, Love and War - Personal or Political

Sexual violence has been employed as a strategic weapon of war for at least as long as historians have been documenting conflicts. Indeed, members of nearly every standing army in history have participated in some form of rape warfare.^{xlvi} Consequently, the international community has implemented various forms of legislation to criminalize the deliberate targeting of civilians during armed conflict. Nonetheless, rape remains one of the most under-reported and inadequately prosecuted of all war crimes. History has shown, however, that the reality of wartime rape is unexpectedly complicated, and that the pervasiveness of sexual violence varies across and within conflicts. Various parties may use Sexual and Gender Based Violence (SGBV) differently in the same dispute, and the types and prevalence of SGBV may change both temporally and geographically. Rape has been highly violent and widespread in some conflicts, such as in Sierra Leone, Rwanda, and Democratic Republic of Congo, and rare in other conflicts,

such as in Israel-Palestine and El Salvador.^{xlix} Certainly, a lack of discipline exhibited by inexperienced and non-professional warriors in conflicts can explain a fraction of these occurrences. Though, it would be disingenuous to affix such justifications upon those instances that are deliberately calculated by the professional soldiers and commanders of comparably advanced armies.^l Moreover, the sheer prevalence of its use precludes the validity of the “bad apple” argument, wherein a deviant minority becomes the scapegoat which suffers for the sins of an apathetic organization.^{li} Indeed, sexual deprivation and base desire cannot explain why even educated military strategists would advocate the use of sexual violence in warfare however, it is necessary to understand that rape is neither incidental nor private. It routinely serves a strategic function in war and acts as an integral tool for achieving particular military objectives. Rape has been traditionally considered as a valuable weapon to strategically target the psychological well-being and social cohesion of civilian populations as well as the morale of enemy units.^{lii} Documenting where and how rape functions as a tool of military strategy is essential to counteract the longstanding view of rape in war as private or incidental. The attention to rape's strategic function, however, has attached much significance to “mass rape” and “rape as genocide.” This emphasis on rape's scale as what makes it an abuse demanding redress distorts the nature of rape in war by failing to reflect both the experience of individual women and the various functions of wartime rape. Although rape is a sex-specific type of abuse, it generally functions like other forms of torture to intimidate and punish individual women. In some instances, however, it also can serve a strikingly sex-specific function, when, for example, it is committed with the intent of impregnating its victims. A Bosnian rape victim told Human Rights Watch, “It was their aim to make a baby. They wanted to humiliate us. They would say directly, looking into your eyes, that they wanted to make a baby.”^{liii} This function of rape has never been reflected in the remedies available for rape victims. If anything, pregnancy is viewed as the “inevitable by-product of... rape,” rather than as a distinct harm meriting its own remedy.^{liv} In some documented instances of rape, the abuse appears to serve not only strategic or political functions but also the perverse sexual gratification of the attacker. Somali women refugees in Kenya typically are raped after being successfully robbed. Rape in this context is thus not only a tool for frightening women into complying with their attackers' demands, but also inflicted specifically against them for sex. The plights of “young” and “pretty” Burmese women kidnapped by soldiers and kept at army barracks for raping is well documented.^{lv} Soldiers are motivated to rape precisely because rape serves the strategic interests delineated above. But the fact that it is predominantly men raping women reveals that rape in war, like all rape, reflects a gender-based motivation, namely, the assertion by men of their power over women.^{lvi} Soldiers can succeed in translating the attack upon an individual woman into an assault upon her community because of the emphasis placed—in every culture in the world—on women's sexual purity and the fact that societies define themselves, in overt or less clear-cut fashions, relative to their ability to protect and control that purity. It is the protection and control of women's purity that renders them perfect targets for abuse. In Turkey, an observer dismissed as impossible allegations of rape by Turkish government forces of Kurdish women—both civilians and guerrillas—on the basis that Turkish soldiers understand that virginity and women's honour are

sacred. Soldiers, it was argued, would not dare to defile women whose communities place a high social value on virginity and female modesty.^{lvii} In fact, soldiers do rape women precisely because the violation of their "protected" status has the effect of shaming them and their communities. Seventeen-year old S., a Kurdish woman from southeastern Turkey, was detained by village guards and Anti-Terror police during a night raid on her village, accused of harbouring members of the Kurdish Workers' Party (PKK), raped during her interrogation, and taunted by her captors: "Now you're engaged, but after we rape you, no one will marry you." When she was released on a hillside in the middle of the night, S.'s captors warned her not to speak of the rape, "because it would be very bad for" her. S.'s story suggests that rapists may also be motivated by the likelihood that their victims will not report the assault. By virtue of being a rape victim, a woman becomes the perceived agent of her community's shame. In a bizarre twist, she changes from a victim into a guilty party, responsible for bringing dishonor upon her family or community. As a result, women victims, whether for fear of being seen this way, or because they see themselves this way, are extremely reluctant to report rape. The shame of rape may keep women, who would rather bury their "dishonor," from seeking punishment for their attackers. K.S., a fifty-four-year-old housewife who was raped in her home by Serbian soldiers, told Human Rights Watch, "What happened to me, happened to many, but the women keep it secret. It is shameful. Thus the mother conceals it if it happened to her daughter so she can marry and if it happened to an older woman, she wants to protect her marriage."^{lix} In Burma, government soldiers rape Rohingya women, thus identifying their victims by their sex and their ethnic affiliation. Rape by the security forces in Peru is strongly determined by race and class: rape victims are overwhelmingly poor and brown-skinned. And Somali women refugees report that they are asked by their rapists to which clan they belong. Women who are the same clan as their attackers may still be robbed, but often are spared rape.^{lx} The UN Security Council Resolution 1820 of 2008 made the crucial step of identifying rape as a specific tactic of war. It was vital to officially acknowledge that the use of sexualized violence by armed forces and military groups may be strategically adopted as a means of infiltrating populations, destroying communities, demoralizing civilians and leaving a devastating lasting legacy.

Women under Siege have identified 10 separate reasons why rape is used as a tool of the Democratic Republic of Congo's war. The case study of DRC's War helps us to penetrate inside the mind of perpetrators of Rape in Armed Conflict. The reasons of Sexual violence including rape given by victims are more or less similar in every Armed Conflict (Military or Civil) wherein 'Rape' was extensively used as a war-weapon. The reasons of sexual violence, including rape given by Congolese rape-victims are as follows.^{lxi}

To humiliate: Researchers Maria Eriksson Baaz and Maria Stern write that "while sexual and other violence is often used to humiliate and intimidate, this humiliation and intimidation is much less strategic and much more complex than a combat strategy to further military/political gains." (The two interviewed soldiers for a 2010 working paper published by the Nordic Africa Institute called "The Complexity of Violence.")^{lxii}

To “protect” soldiers: Lisa Jackson’s 2008 documentary, “The Greatest Silence,” shows Mai Mai militia members talking about why they rape. One of them discusses how fighters rely on the “magic power” of raping a woman. Some fighters believe it fortifies them for battle. “Well, we were just abiding by the conditions of our magic potion,” said one. “We had to rape women in order to make it work, and beat the enemy.”

To terminate pregnancies: Some evidence points to perpetrators targeting pregnant women. One survivor interviewed by the BBC recounts that her rapists purposely aborted her nine-month-old fetus with objects after raping her. Other women report miscarriages following their attacks.

To control communities, territory, or natural resources: Chloe Christman of the Enough Project’s Raise Hope for Congo Campaign confirms that in a country rife with conflict over mineral wealth, rape is often targeted at women in communities in close proximity to mines and other resources. However, soldiers are so strategic about deciding whom to attack that they purposely avoid raping women in certain communities if they think that earning the group’s trust through less violence will ensure greater access to that area’s resources. Christman says armed groups are “very smart and can be very calculating” when deciding whether or not to attack, and whom. Their thinking seems to be, “Am I going to get more by raping these women or by providing the thought of protection to this community?”^{lxiii}

To increase food insecurity: Women are targeted especially near camps for internally displaced persons (IDPs) while they search for firewood or try to cultivate crops, says Christman. While there is the possibility that militia members are raping women who happen to be out doing these tasks, experts say that rape has repeatedly been used to procure a community’s resources in DRC, and that militia groups are strategically targeting these women.

To silence: A report from United States Institute of Peace in conjunction with the Harvard Humanitarian Initiative indicates that the Lord’s Resistance Army (LRA), a militant group that operates from Uganda to South Sudan to DRC, mutilates and sometimes kills civilians “to deter communities from disclosing LRA whereabouts.”^{lxiv}

“The devil made me do it”: Some Mai Mai soldiers tell interviewers that Satan provokes them to rape. Others more generally speak of acting on a sudden desire when they see a woman, and of the anonymity that allows them to commit acts they would otherwise avoid in their civilian lives. In a separate study of rape among combatants in the state’s Armed Forces of the Republic (FARDC), a team of Swedish researchers found that FARDC soldiers also differentiated between “normal” rape—to fulfil sexual “needs”—and “bad” or “evil” rape, which might entail mutilations or the abuse of children.

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To avoid violence from superiors: Mai Mai militia men tell researchers that they rape even when they don't want to. The consequences of not committing sexualized violence, they say, would be a severe beating by their superiors.

To express frustration or anger: The Swedish researchers found that FARDC soldiers used sexualized violence as a way to alleviate or express their anger at being hungry, impoverished, or "unloved" by their wives. One soldier speaks of his suffering and how anger over the lack of resources in his life takes on the form of rape, murder, and looting. "You feel you have to do something bad," he says. "You mix it all: sabotage, women, stealing, rip the clothes off, killing." At least two soldiers Jackson interviews state matter-of-factly that one of the reasons rape occurs is that soldiers spend "too long" in the bush without women. Therefore, according to their logic, when they do encounter a woman, they will necessarily rape her. They use this reasoning with respect to their own personal abuse of women as well as when they describe rape committed by Hutu soldiers.

To retaliate: Women whose husbands are important figureheads in a community or support a different militia than the one invading at a given time are often raped in retaliation.

The statistics given below^{lxv} is self-explanatory about the role that RAPE has played in War. As the reporting of rape has improved, the scale of the crime has become more horrifyingly apparent. The Statistics is just not about numbers, but it is more about the revelation of demonic side of mankind that comes up from to time during armed conflicts.

CUSTOMARY EVIL RAPE DURING CONFLICTS- THE STATISTICS	
CONFLICT	ESTIMATED RAPES
Second Sino-Japanese War, Nanking 1937	20,000 (some 200,000 sex slaves then were provided to Japanese Army during World War II)
Soviet Army in Germany, World War II	100,000-2 Million
Pakistani Army during the Bangladesh War of Secession, 1971	200,000
Bosnian War, 1992-1995	20,000
Sierra Leone Civil War, 1991-2002	Over 50,000
Rawandan Genocide, 1994	500,000

Source-**The Economist**

**ANALYSIS OF EFFECTS OF GENDER BASED SEXUAL VIOLENCE (including Rape)
IN CONFLICT AND POST-CONFLICT WAR ZONES**

“Traumatized people suffer damage to the basic structures of the self. They lose trust in themselves, in other people; in God...The identity they have formed prior to the trauma is irrevocably destroyed.”

~ Judith Lewis Herman, Trauma and Recovery, 1992

The effects of Gender-based violence can be devastating and long lasting. They pose danger to a woman's reproductive health and can scar a survivor psychologically, cognitively and interpersonally. Increased levels of sexual and gender-based violence can often persist well after the end of a crisis. Women and girls are usually disproportionately affected, and crimes such as these have devastating, long-term effects on the lives of survivors, their families, and the communities in which they live. The following are some of the effects of Sexual violence in Armed Conflict on women:

1. Sexually transmitted diseases are lasting consequences of sexual violence and are major a major health concern for women in conflict zones.
2. Physical harms such as injury to reproductive organs, traumatic fistulas, and infertility often accompany brutal or repeated rapes. Attempts at abortion following an unwanted pregnancy from rape may also have severe medical complications, and women who are pregnant at the time of the attack frequently miscarry
3. Serious psychological disorders including depression, anxiety, post-traumatic stress disorder, shock, memory loss, and sexual dysfunction.
4. Rape trauma syndrome, a syndrome used to describe emotional responses to sexual assault including hopelessness, loss of control, anger, guilt, and phobias.
5. Suicide, behaviour disorders, and eating disorders.
6. Fear of additional sexual violence may also keep women from going about their normal activities, such as attending school, engaging in the market, or participating in politics
7. Reintegration difficulties and social stigma
8. Another consequence facing victims of Gender based sex violence in conflict areas involves the process of justice and reparations. Sex violence including Rape is sometimes viewed primarily as a violation of the male's (husband, father, etc.) property rights, not as a violation of the woman's human rights. This perspective can have a substantial impact on the justice and reparations process.^{lxvi}
9. Families who have lost a female member of their household, therefore, often receive grossly inadequate compensation for their loss. For example, in Northern Ireland the reparations made by the government for the military-caused conflict death of a mother of six children totalled £84.

The anarchy and impunity of war goes some way to explaining the violence. The conditions of war are often conducive to rape. Young, ill-trained men, fighting far from home, are freed from social and religious constraints. The costs of rape are lower, the potential rewards higher. And for ill-fed, underpaid combatants, rape can be a kind of payment. Considering the type of wars fought today. Many recent conflicts have involved not organised armies but scrappy militias fighting amid civilians. As wars have moved from battlefields to villages, women and girls have become more vulnerable. For many, the home front no longer exists; every house is now on the front line, and at the end, the sex violence perpetrated against woman not only destroy her, but destroy the community and culture she belongs to.^{lxviii}

CONCLUSION

When war crimes are committed against women and children in similar ways as they are to men, they are universally recognized as atrocities and have been punished as such . . . A problem arises however when war crimes and genocidal atrocities are committed against women and girls in gender-specific ways. Hundreds of thousands of women, this century alone, have been raped in wars . . . The ‘universal soldier’ it seems, always has, and to this day, does, rape with impunity.^{lxix} The degradation of women has always been the focal point of Battle. History shows that Mass rape was used not only as an instrument of terror and humiliation but also a tool to achieve political goals. There is a common belief about chastity and purity of woman shared by almost all the cultures and religions. Thus, many of the victims of rape in Armed conflicts experienced not only the usual consequences associated with such trauma, but also rejection and ostracism from their own communities. Several were denied marriage or the opportunity to have children. The final dimension associated with the Armed conflicts involved a program of ethnic cleansing. As is the case in Rwanda, East Pakistan (Now Bangladesh), Bosnia-Herzegovina by fathering children. These perpetrators believed that they could nullify every aspect of the mother’s identity, including her ethnic and religious identity, by raping and impregnating her. Rape and sexual atrocity “work” as tactics to destroy another group for many reasons like physical death, submission and terror, humiliation, ethnic cleansing, self hatred, community breakdown, a belief that rape ‘dilutes’ the race of the next generation etc. Considering the ambit of problem, its international nature and its collective impact on the world at large, Humanitarian organizations need to design common protocols that take into account the medical, psychological and social impact of all types of sexual violence in Warzones. War-time rapes left deep and lasting consequences on the mental health of the victims and their families. Thus, survivors require treatment to improve their own individual lives, but repairing survivors also empowers them to revive their communities, and non-individualistic, community-level treatments remain essential as well. It is an undeniable fact that sexualized violence is political which further acknowledges the fact that sexualized violence does not need to happen which simply means that it is not an inevitable byproduct of war hence, can be stopped. However, we have collectively failed to act to halt the genocide in World Wars, Rwanda, East Pakistan, Bangladesh, Bosnia-Harzegovina, Congo, Uganda and Sudan. And Yet we continue to say, “Never again”... The

time has come to become more civilized in the interest of future generations, in the interest of existence of human race.

RECOMMENDATIONS

Every year, tens of thousands of men, women, and children endure sexual violence during and after armed conflict. According to international law, using rape as a weapon of war is a war crime. Despite this legal protection, armies in dozens of global conflicts have used rape as a tactic of war with impunity. Considering the global aspect of 'Wartime Rape Epidemic' Author recommends,

1. That, ending impunity must be at the core of any systematic response to the crisis of sexual violence. The rate of prosecutions should increase.
2. That, the steps should be taken to improve the accountability of crimes of wartime sexual violence.
3. That, the Armies that Rape should be publicly named and shamed. Soldier or commander whoever engage in any sexual violence including Rape or tolerate it must be identified and shame publicly.
4. That, Countries should make aid and weapon transfers to armed groups conditional on their human rights record and swiftly withdraw both if soldiers are reported to rape civilians.
5. That, the political leaders, representatives of nation/groups and its Armed Forces that order or tolerate Rape should be severely punished by imposing sanctions like travel banns etc.
6. That, the tasks of investigating, prosecuting and judging crimes of rape need special attention. Personnel working in these areas need to take special care not to cause even more trauma for victims of sexual assault.
7. That, wishes, rights, and the dignity of the victim shall be respected when taking action to prevent or respond to an incident of sexual violence
8. That, procedures that grant State officials immunity from prosecution in cases of serious human rights violations, such as rape be removed.
9. That, police, prosecutors, judicial authorities and medical staff in the treatment of victims of sexual violence, and in the conduct of criminal investigations and the collection of forensic evidence be properly trained.
10. That, a safe and supportive environment for victims to seek and receive medical and legal services be created. Personal psychologist must be appointed to tackle the shattered mind and emotional damage-the post traumatic stress disorder of War Rape victim.
11. That, Medical personnel working in conflict settings must be trained to recognize victims of rape and to address both the immediate and long-term consequences. Psychological interventions are complicated by the reality that rape in wartime usually happens against a backdrop of other traumas and losses. In this context, mental health programs for rape victims must be broad based and target a variety of traumas.
12. That, whether the punishment of perpetrators and compensation for victims are in accordance with the gravity of the crime and international human rights standards, particularly those on cruel, inhuman or degrading treatment or punishment shall be ensured.

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Significance of Yoga in Healing Anxiety and Depression

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ABSTRACT

Yoga is an ancient art based on a harmonizing system of development for the body, mind, and spirit. Primary goal of yoga is to gain balance and control in one's life that includes both physical and mental wellbeing. Effect of yoga on mental wellbeing: Yoga frees one from confusion and distress; provide a sense of calmness and installs optimism within you. Effect of yoga on physical wellbeing: Practicing yoga poses cleanses and detoxifies the body, by circulating of fresh blood through the body. Yoga helps to achieve perfect health, spiritual contentment, and total well being. It is inner journey inside one's self and maintains harmony between mind and body. The aim is to examine Significance of Yoga in healing anxiety and depression for this purpose researcher selected purposive sample study. The study was carried out on 42 Male/Female at yoga ayurveda, shilaj, Ahmedabad. Sinha Anxiety Test and Aron. T. Deck Depression inventory were administered after gap of one month. Outcome/result of study was seen.

Keywords: *Yoga, Anxiety, Depression, Mind*

A Hindu spiritual and ascetic discipline, a part of which, including breath control, simple meditation, and the adoption of specific bodily postures, is widely practised for health and relaxation. Yoga is a practical aid. Yoga is an ancient art based on a harmonizing system of development for the body, mind, and spirit. The continued practice of yoga will lead you to a sense of peace and well-being. It could be said that a primary goal of yoga is to gain balance and control in one's life. Yoga helps in both physical and mental wellbeing.

Benefits of yoga.

Yoga is one of the ancient life healing technology which has been practiced in India and world for various centuries. It is an important, natural, preventive measure to ensure good health and well being. The benefits of yoga are countless. Yoga helps to improve muscle tone, flexibility, strength and stamina and reduces stress and tension. It boosts up the self esteem and improves the concentration and creativity of the human being. Yoga also helps to reduce fat, thus an

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important measure to remove obesity. Yoga also improves the circulation of blood and also stimulates the immune system. Besides this, yoga also helps to manage or control anxiety, arthritis, asthma, back pain, blood pressure, carpal tunnel syndrome, chronic fatigue, depression, diabetes, epilepsy, headaches, heart disease, multiple sclerosis, stress, High blood pressure, mood and various other physical and mental problems. Yoga helps you to access an inner strength that allows you to face the sometimes-overwhelming fears, frustrations, and challenges of everyday life.

Styles of Yoga

There are various styles of yoga but all these styles are very different in one way or the another. These differences can be coordination of breath and movement, holding the postures, or the flow from one posture to another and strict alignment of the body. Ashtanga Yoga, Iyengar Yoga and Viniyoga are the three main styles of Yoga. 1) **Ananda Yoga** 2) **Anusara Yoga** 3) **Ashtanga Yoga** 4) **Bikram Yoga** 5) **Integral Yoga** 6) **Iyengar Yoga** 7) **Kundalini Yoga** 8) **Sivananda Yoga** 9) **Svaroopa Yoga** 10) **Viniyoga**

Anxiety

A general term for several disorders that cause nervousness, fear, apprehension, and worrying. These disorders affect how we feel and behave, and they can manifest real physical symptoms. Mild anxiety is vague and unsettling, while severe anxiety can be extremely debilitating, having a serious impact on daily life.

People often experience a general state of worry or fear before confronting something challenging such as a test, examination, recital, or interview. These feelings are easily justified and considered normal. Anxiety is considered a problem when symptoms interfere with a person's ability to sleep or otherwise function. Generally speaking, anxiety occurs when a reaction is out of proportion with what might be normally expected in a situation. People with anxiety disorder experience constant, chronic, and unsubstantiated worry, often about health, family, money, or work. This worrying goes on every day, possibly all day. It disrupts social activities and interferes with work, school, or family. Physical symptoms of include the following: muscle, tension, fatigue, restlessness, difficulty sleeping, irritability, edginess, gastrointestinal discomfort or diarrhea

Depression

A mental condition characterized by severe feelings of hopelessness and inadequacy, typically accompanied by a lack of energy and interest in life. Depression is a condition in which a person feels discouraged, sad, hopeless, unmotivated, or disinterested in life in general. When these feelings last for a short period of time, it may be a case of "the blues."

But when such feelings last for more than two weeks and when the feelings interfere with daily activities such as taking care of family, spending time with friends, or going to work or school,

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it's likely a major depressive episode. Most people feel anxious or depressed at times. Losing a loved one, getting fired from a job, going through a divorce, and other difficult situations can lead a person to feel sad, lonely, scared, nervous, or anxious. These feelings are normal reactions to life's stressors. But some people experience these feelings daily or nearly daily for no apparent reason, making it difficult to carry on with normal, everyday functioning. These people may have an anxiety disorder, depression, or both. **Types of depression** Three main types of depressive disorders—major depression, dysthymia, and bipolar disorder—can occur with any of the anxiety disorders.

OBJECTIVE

- The purpose of this study significance of Yoga in healing anxiety and depression.

Hypothesis:

- In relation to this study, there is null hypothesis obtained by the researcher. There are no positive effects of yoga on physical and mental wellness.

Sample:

In the aims to this study 42 Male/Female at yoga ayurveda, shilaj, Ahmedabad were selected sample out of which 26 were female and 16 were male. Once both the test were administered they were administered again after one month gap.

The Beck Depression Inventory (BDI) created by Dr. Aaron T. Beck, was administered to measure depression. Reliability of **Beck Depression Inventory (BDI)**: Most studies carried out on reliability find that the BDI is a reliable test of depressive severity. Validity of BDI: One of the main objectives of Beck Depression Inventory BDI was to have it conform more closely to the diagnostic criteria for depression, and items were added, eliminated and reworded to specifically assess the symptoms of depression listed in the DSM-IV and thus increase the content validity of the measure The BDI has concurrent validity in that it tends to agree with other measures of depression. It is also high on construct validity. An obvious way to judge validity of a test is to observe the person in real life situations. If the person scores as suffering severe depression then this should be observable in their behavior.

Anxiety was measure by Sinha's Comprehensive Anxiety Test (SCAT): Test developed by A.K.P Sinha and L.N.K Sinha in (1995).

Reliability: Reliability of **Sinha's Comprehensive Anxiety Test (SCAT)**: Test developed by A.K.P Sinha and L.N.K Sinha in 1995 consists of 90 items, significant at 0.01 level. Scoring: Sum total scores show the anxiety level. Higher the scores show higher the anxietyThe coefficient of reliability was determined by using the Product moment correlation was 0.85 and by using Spearman Brown Formula was 0.92. Both the values ensure a high reliability of the test.

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Validity: The coefficient of validity was 0.62, which is significant beyond 0.01 Level of confidence.

Higher the scores show higher the anxiety.

Variables of the study: The present study involves anxiety level as dependent variable and yoga techniques as independent variable.

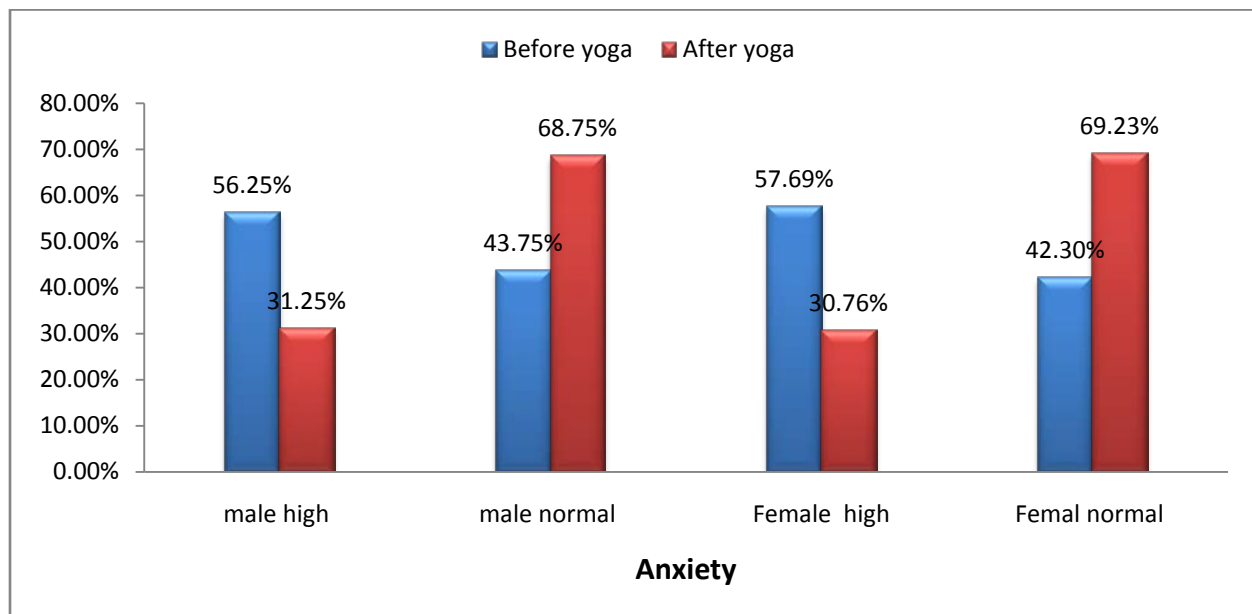
METHOD

For the purpose of this study, 42 female/male from yoga ayurveda, shilaj, Ahmedabad were selected randomly and Sinha Anxiety Test and Aron. T. Deck Depression inventory were administered on gap of one month. Reference to this study, 42 female/male was given yoga and meditation techniques for 60 minutes every day for 30 days. All were to give test before training of yoga and meditation techniques and then later they were again to give a test. This was resulted as per the tables under here:

Statistical analysis:

Anxiety

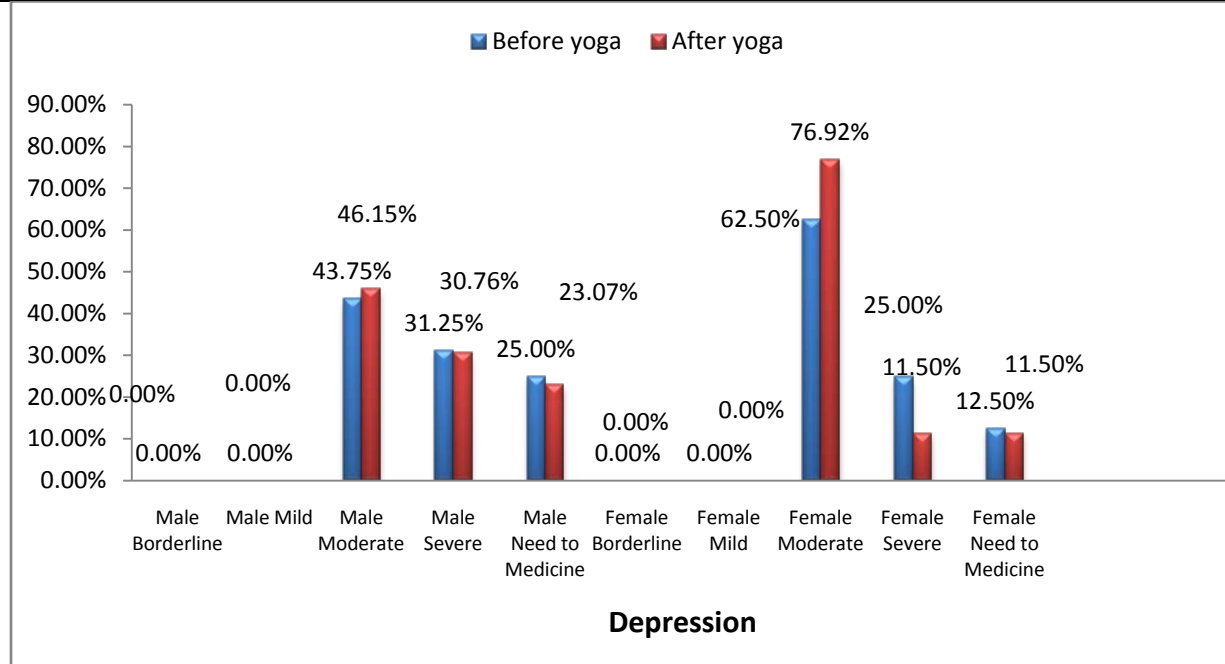
Gender	Before		After
Male (16)	High	9 (56.25%)	5 (31.25%)
	Normal	7 (43.75%)	11 (68.75%)
Female(26)	High	15 (57.69%)	8 (30.76%)
	Normal	11 (42.30%)	18 (69.23%)
Total		42	42



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Depression

Gender	Male(16)		Female(26)	
	Before	After	Before	After
Borderline	0	0	0	0
Mild	0	0	0	0
Moderate	7 (43.75%)	10 (62.5%)	12 (46.15%)	20 (76.92%)
Severe	5 (31.25%)	4 (25%)	8 (30.76%)	3 (11.5%)
Need to Medicine	4 (25%)	2 (12.5%)	6 (23.07%)	3 (11.5%)
Total	42			



RESULT AND DISCUSSION

The above table indicates that there was a significance difference. In this relation to our null hypothesis, it has been clearly rejected. The result says that there is positive significance of yoga and meditation techniques in healing of anxiety and depression.

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The (Long) Nose doesn't have it: Nose Length as a Factor in Salt and Pepper Passage

Minér Patrick^{1*}, Bill Hornbeak², Léon Le Né², Mandeep Patil³, Pat Minér³

ABSTRACT

This paper contains expected abstract and report of results that would confirm Minér et al's (2016) proposed experiment on salt passage. Eighty female undergraduates completed questionnaire with snacks and drinks, along with a salt shaker and a pepper shaker available. They were asked to pass salt or pepper by another female or a male who also worked on questionnaire, but who was in league with the experimenter. These confederates had either very long nose or normal-sized (short) nose (le nez normal). Participants complied to both requests, but were slower to respond to pepper request than to salt request and to the person with the long nose. Response times were particularly slow when the request was made by male with long nose (homme avec le nez long). Implications for similarity theory and attraction theory are discussed and suggestions are made for the future research going forward.

Keywords: *Nose Length, Salt Passage, Pepper Passage*

Pencil (1976) writes that what appears to be simple request to pass the salt has actually been the subject of consideration for literary writers and even philosophers in the English tradition. However, there are reports of psychological research conducted to test various ideas in the manner empirical. Two literature reviews (Pacanowsky, 1978; Pencil 1976) identified a number of determinants of the salt passing: politeness of request to pass salt, number of people present, and both attitudes and race of sender and receiver. The writers recommend more research, particularly on various personal characteristics. Answering this call many years later, Minér(2015) recently proposed that salt passage was related to both sex of recipient and sex of sender, with faster response times when the request was made by a member of the opposite sex. It was speculated that this result might be mediated by physical attractiveness. If true, attractiveness theory would trump similarity theory according to which the response would be

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faster to a member of same sex. Furthermore, Minér, Horn and Patrick (2016, accepted and submitted for in press) proposed examining attractiveness in another way: via nose length. They offered suggestions and presented expected outcomes showing effect of nose length on salt and pepper passage. The present paper is an account of what would be reported and revealed in expected results when confirming experiment is conducted and finds predictions supported.

Purpose of present experiment was to extend this discussion by incorporating attractiveness directly into the equation. Because natural physical attractiveness cannot be examined experimentally, it was approached by artificially manipulating a facial feature that has been related to attractiveness: the nose (*Seriously Science*, 2014) and, more specifically, nose length (Baudouin & Tiberghien, 2004; McKelvie, 1993). This feature was also chosen because there were local facilities to create noses to prescription (see Method). In addition, and in the spirit of complete transparency, two of the researchers themselves (BH, LLN) each have been blessed (or cursed) with a large “Gallic” or Roman nose (although not as long as the artificial one used here), and were somewhat “nosy” about the effects of this manipulation. In contrast, two of the researcher (PM and MP) have extremely flat noses. These personal factors prompted interest in present topic.

Research shows that people with longer noses are perceived as less attractive than people with shorter noses (Beaudion & Tiberghien, 2004; McKelvie, 1993). Because compliance is less likely when requester is less attractive (Debevec, Mardin & Kernan, 1986), it was predicted that participants would be less likely to pass the salt to person with long nose compared to person with short (normal) nose. Although all participants were female, person making the request to pass salt or pepper was either male or female. Sex of requester was not expected to be a factor on the effect of nose length, but it provided another test of attractiveness theory, according to which the female participants would respond faster to a male than to a female.

The second purpose of present research was to extend investigation from passage of salt to passage of pepper. This question has been considered by Minér (2015), who suggested that response time was slower for passing pepper than for passing salt. Thus, it was predicted that response time would be slower for pepper passage than for salt passage. However, it was not clear whether this pattern would be affected by nose length. Given that pepper can cause sneezing, it was speculated that the request for pepper made by person with long nose may be special. Consciously or unconsciously, the participant might associate the pepper and the nose with sneezing (and may even be instigated to sneeze), creating a distraction from task at hand. Consequently, the slowest times might occur when the person with the long nose asks for pepper to be passed.

METHOD

Participants

Eighty female undergraduates were recruited from introductory psychology courses at three institutions (25 to 27 from each) and were given 2 credit points towards their final grade. They were assigned at random to four requester conditions ($n = 20$): male with long nose, male with short (normal) nose, female with long nose, and female with short (normal) nose.

Materials

Materials consisted of salt shaker, pepper shaker, and questionnaire about music preferences. Details of questionnaire are not included here because these data were not analyzed. Questionnaire was only given to conceal real purpose of experiment. Most importantly, a lifelike long false nose was constructed in department of fine arts at the university institution and, with assistance from makeup experts in department of drama, male and female confederates were fitted with long noses for long nose condition. A brief pre-test check with four observers indicated that long noses blended well with faces and that these noses were indeed perceived as abnormally long. In short nose condition, the assistants simply displayed their own natural noses, and the observers indicated that they were perceived as normal in length.

Procedure

Participants signed up for a study of music preferences and were tested individually in psychology laboratories. On arrival, experimenter explained that they and another participant would sit opposite each other at a table and complete questionnaire. Filling it out took approximately 20 minutes. Other person was also undergraduate, but confederate of (in league with) experimenter. He/she always made the request and true participants (who were asked to pass salt or pepper) were always senders. Salt and pepper shakers were closer to sender's side of table. To ensure this, there was a draw for which side of the table the two people would sit, but it was rigged so that sender would always be in appropriate location.

Participants completed questionnaire at their own speed. They were also given two bowls, one filled with unsalted peanuts and one filled with unsalted potato chips, and a choice of water, orange juice and cranberry juice to drink. It was made clear that participants could snack and drink as they wished.

The confederates were two students, one male and one female from same institution as participant. Each one served in long nose condition and in short nose condition. Thus, as stated above, participants were divided into four separate groups: male long-nosed requester, male short-nosed requester, female long-nosed requester, and female short-nosed requester. The confederates completed questionnaire like real participant, and they asked the participant to pass salt or the pepper according to following schedule: first request was made after five minutes and second one after one more minute. For half of the participants, first request was for salt to be passed and second was for pepper to be passed, and for the other half the requests were

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counterbalanced in opposite order. The first and second requests were delivered respectively as follows: "Excuse me, would you pass the salt (pepper)?" and "Sorry to bother you again, but would you pass the pepper (salt)?" If request was honoured, recipient returned the salt or pepper shaker to its original spot.

Behavior of sender (whether or not he or she actually passed salt or pepper) was independently observed by two observers through one-way mirror. They were blind as to the purpose of experiment. In addition, using stopwatches, they also independently recorded time from when request was made until sender lifted shaker. Finally, at end of experiment, they also independently rated nose size of participants on a scale from 1 to 9 where 1 was extremely short, 2 was very short, 3 was short, 4 was slightly short, 5 neutral, 6 was slightly long, 7 was long, 8 was very long and 10 was extremely long. To give benchmark to ratings, "Extremely long" was defined as length of artificial long nose. These ratings were obtained at the end so that they would not contaminate estimates of response times.

It should also be noted that the authors of this report (the experimenters) also observed proceedings through another one-way mirror. However, they did not keep any records in systematic manner.

RESULTS

Datas were analyzed using SPSS (PASW Statistics 18), with alpha set at 0.05.

Nose Length of Participants

Ratings of nose lengths by the two observers were close to each other (never more than one rating point apart). The datas for analysis consisted of mean of the two ratings for each participant.

Over all participants, mean length of their noses was rated as 5.1 ($SD = 0.5$). Indeed, 85% of the ratings were 5 (neutral) and the others were 4 (slightly short) or 6 (slightly long). Moreover, A 2 X 2 (Sex of Recipient X Nose Length) between groups ANOVA on ratings yielded no significant effects.

Compliance Behavior

Every participant passed salt and pepper when asked. That is, 20 out 20 people in each of the four sex/nose conditions complied.

Response Time for Compliance

Response times for the two observers were also close to each other (less than 200ms difference). The datas for analyses consisted of mean of these two times for each participant. Scores in each condition are in Table1.

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These data were treated with a 2 X 2 X 2 X 2 (Sex of Recipient X Nose Length of Requester X Substance X Substance Order) mixed model regression ANOVA with repeated measures on substance. Because order was not significant and did not interact significantly with any other variables, the data were collapsed over it and a 2 X 2 X 2 (Sex of Recipient X Nose Length of Requester X Substance) mixed ANOVA was conducted. The following effects were significant: sex of recipient, $F(2, 76) = 74.32, p < .001$, nose length of requester, $F(2, 76) = 235.84, p < .001$, sex of recipient X nose length of requester, $F(2, 76) = 21.39, p = .007$, and substance, $F(2, 76) = 9.48, p = .002$. For the three significant main effects, response times were slower for male recipient than for female recipient, for long nose requester than for short nose requester, and for pepper than for salt. The two-way interaction between sex of recipient and nose length of requester occurred because the effect of nose length (slower for long) was greater for male requester than for female requester. That is, response times were always longer for long nose than for short nose, but this difference was greater when male requested than when female requested.

DISCUSSION

Despite suggestions for future research on salt passage many years ago (Pacanowsky, 1978; Pencil 1976), it was only recently (Minér, 2015) that the question was reconsidered. Consistent with previous results, participants responded positively to request to pass salt. In addition, and as Minér (2015) summarized, they also responded positively to request to pass pepper. Indeed, and also as suggested by Minér (2015), there was a perfect rate of compliance. That is, every sender passed salt and pepper when asked. This is unusual because earlier compliance rates were lower (Pacanowsky, 1978; Pencil 1976). Most of that research was conducted in the 1960s and 70s in the U.S.A. whereas the recent work took place mostly in Canada but also in la France. Notably, Pacanowski (1976) reported that compliance is higher in Canada than in some other countries, although U.S.A. Nevertheless, one critical factor here might be agreeableness, because Canadians have a reputation for being “nice” (Weiner, 2015). Future research might focus on this variable going forward.

Although *rates* of compliance did not vary across conditions, *time* to fulfil request was related to all three factors, as predicted by Minér et al. (2016 in press). In particular, and again as Minér (2015) indicated, response time was slower for pepper passage than for salt passage. As Minér observes, perhaps it is less usual to shake pepper over peanuts and chips than it is shake salt. Participants may have taken longer to respond because they were surprised. However, this effect might not occur in every country. For example, in India, where pepper originated (<http://thehistoryvault.co.uk/salt-pepper/>), people may shake it on many foods, and perhaps would not see it as unusual to shake it on their snack foods. This is good question for further cross-cultural investigation going forward.

Unlike Minér's (2015) proposal, in which time to comply was faster for requesters of opposite sex, which seems consistent with attractiveness theory, present female participants responded

faster to *female* requester, which seems more consistent with similarity theory, in line with Minér et al. (2016, in press). Although Minér(2015) suggested that faster compliance to opposite sex was due to the attractiveness (wanting to please attractive person), present slower compliance to opposite sex might also be due to attractiveness because the female participants looked longer at the male requesters, causing them to delay responding. Consistent with this reasoning, in their casual anecdotal observations the experimenters observed a tendency to gaze more at male requester.

However, the most interesting (and novel) finding here was that responding was *slower* when request (whether for salt or for pepper) was made by person (male or female) with *long* nose than by person with short nose. This result was expected because faces with long noses are less attractive than faces with short noses (Beaudouin & Tiberghien, 2004; McKelvie, 1993) and compliance is negatively related to attractiveness (Debevec, et al., 1986). This result therefore provides further support for the attractiveness theory. However, unexpectedly, effect of nose length was exaggerated when male made request. Other casual observations may point to a possible explanation. The experimenters noticed that when female participants were paired with another female who had long nose, they rarely looked at other person and they seemed almost embarrassed. However, when person sitting opposite was male with long nose, they appeared to sneak more glances at him (albeit surreptitiously), and seemed to be suppressing the laughter. Indeed, one young lady in this condition was observed to be shaking and had noticeable wetness on her cheeks, which seemed to be tears. It was not our impression that she was upset. Directing attention to the emotion-control problem of suppressing visible signs of mirth in presence of a male face with a long nose may have interfered with female participants' processing of request. In future research going forward participants could be given a post experimental questionnaire to record their subjective reactions.

All participants in the present experiment were women. This raises the question of whether the results would generalize to men. In particular, would the present exaggerated effect of nose length with female participants and male requester also occur with male participants and female requester? That is, would men be distracted by mirth in the presence of a woman with long nose?

It was speculated that the combination of pepper with long nose would create a condition with special consequences. However, this did not occur. Even though pepper can make a person sneeze, a perception that may be exaggerated by presence of long nose, the slowing effect of pepper and slowing effect of nose length were independent. There was no evidence that the pepper/long nose combination was particularly distracting, resulting in slower compliance. Moreover, no sneezing was observed.

One strength of present experiment is that nose lengths of the participants themselves did not vary among the four conditions and were clearly in normal range. In particular, no participant had a nose that even approached the length of long one displayed here. It might be interesting to

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find participants with naturally longer noses and examine if their behavior differed from people with normal ones. For example, a person who had long nose might feel kinship with another person who also had long nose, causing them to pass salt or pepper more quickly. Sex might also play a role in this effect. The feeling of long nose kinship might vary for male and female participants faced with male and female requesters.

Returning to theoretical issues, similarity theory (Ajzen, 1974) suggests that people would respond faster to others who are more similar to themselves. Applied to nose length, this implies that participants respond faster to people with *similar* noses. However, attractiveness theory (Kulik & Harackiewicz, 1979) suggests that people would respond faster to people considered to be attractive. That is, participants might respond faster to people with *normal* noses. The two theoretical alternatives should be further examined in future going forward with male and female participants who have long noses or normal noses. In addition, although the speculated exaggerated slowing effect of pepper with long nose (which might be a distract or via association with sneezing) did not occur in present experiment with female participants and a male or female requester, it might appear with male participants or with people of same sex.

CONCLUSION

Expected report finds that female participants always complied with request to pass salt or pepper. However, they responded more slowly to pepper than to salt and person with long nose than to person with short nose, particularly when requester was male. The experiment should be replicated with male participants and extended to include participants with long noses or normal noses and to other cultures, particularly in India.

Acknowledgments

This research would not have been possible without the support and encouragement of J.C., A.F.G., and W.M., our academic mentors.

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Table 1, Mean Response Times (sec) in Each Condition

Sender	Nose	<i>n</i>	Salt		Pepper	
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>

Male						
	Long	20	2.36	0.33	2.01	0.54
	Normal	20	8.08	1.17	5.05	1.22
Female						
	Long	20	1.69	0.35	1.53	0.42
	Normal	20	3.27	0.48	3.03	0.44

Impact of Neurotransmitters on Health through Emotion

Ms. G. Deepika^{1*}, Ms. Rajeswari. H²

Keywords: *Neurotransmitters, Health, Emotion*

Animal and Human behaviour suggests that it is ultimately an expression of events guided by the nervous system. As decision-making neurological processes became increasingly concentrated in the centralized brain over evolutionary time, behaviour became essentially an expression of brain's response to information coming to it from inside and outside the body.

Human emotions guide and direct behaviour. They dominate us in such a way that there is no solution. If a person has no emotions, he becomes crippled in terms of life. An emotion is a strong feeling associated with some instincts or biological drives. In addition to the above, emotions have some more specific characteristics-they bring psychological and physiological changes. Emotions are short-lived experiences that produce coordinated changes in people's thoughts, actions and physiological responses. During emotions, specific action tendencies infuse both mind and body, simultaneously narrowing individual action urges (flight in fear, attack in anger) by mobilizing appropriate bodily support for those specific actions.

Human emotions are classified into Negative (Fear, Anger, Depression, Anxiety, Envy, Shame etc.) and Positive (Love, Appreciation, Happiness, Hope, Confidence, Patience, Trust etc.) emotions. The primary emotions are anger, fear, pleasure, sadness, and disgust. Positive emotions are often characterized by a relative lack of autonomic reactivity. They broaden the scopes of attention, cognition, and action widening the array of precepts, thoughts and actions presently in mind. The positive emotion of pleasure may facilitate injunctive, exploratory, sexual or novel-seeking behaviour. Negative emotions such as anger and fear may promote avoidance or defensive behaviour. They may lead to Change in appetite, Headaches, High blood pressure, Insomnia, Sexual problems, Weight gain or loss, Chest pain. Studies have shown that negative emotions actually weaken your body, while positive emotions strengthen your body. Shame has the most devastating effect, followed by guilt, apathy, grief, fear, anxiety, craving, anger and

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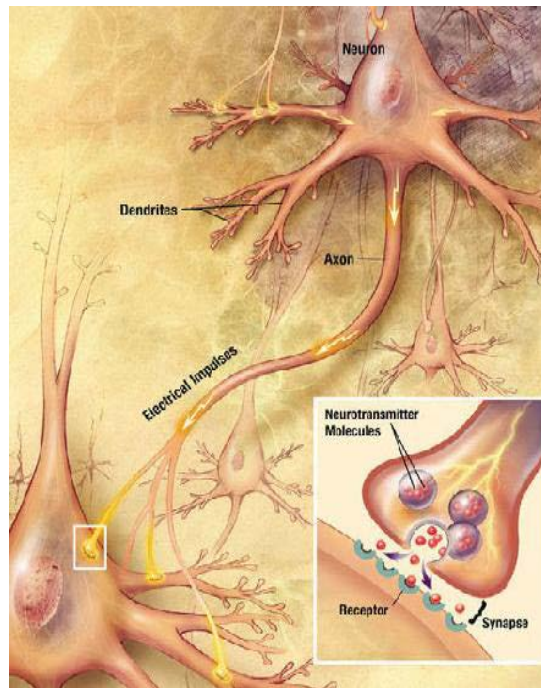
hate. Negative emotions really do cause disease and illness and premature aging. Powerful emotions such as pain, fear, grief, disappointment, panic, anxiety, anger and longing shock your body like an electrical charge, leaving scars or lesions along your neural pathways.

Neurotransmitters:

Neurotransmitters are a chemical substance that acts as a mediator for the transmission of nerve impulse from one neuron to other neuron through a synapse. It is produced in the cell body of the neuron and is transported through axon. At the axon terminal, the neurotransmitter is stored in small packets called vesicles. Under the influence of stimulus, these vesicles open and release the neurotransmitter into synaptic cleft. It binds to the specific receptors on the surface of post synaptic cell and is responsible for the various actions produced. In short, neurotransmitters are the way nerve cells communicate with each other and with other cells in the body. Neurotransmitters are used to relay information about environment to the brain, to analyze the information and to set in motion appropriate bodily responses.

Most neurotransmitters can activate multiple receptor subtypes and receptor classes. If they were allowed to operate over a long period of time, the results would be disastrous for the organism since there would be a constant overload of messages being sent. Approximately neurotransmitters regulate human body functioning and contribute to normal functioning. They function by changing the permeability of the cell membrane to various ions such as sodium and potassium. If an excess of sodium ions flow into the nerve cell, an impulse is generated. If an excess of potassium ions flow out, the impulse is inhibited. Depending upon their function, neurotransmitters are classified into two types. **Excitatory neurotransmitters and Inhibitory neurotransmitters.** **Excitatory neurotransmitters** are responsible for the conduction of impulse from presynaptic neuron to postsynaptic neuron. Neurotransmitter released from pre synaptic axon terminal causes some change in resting membrane potential, i.e. slight depolarization by the opening of sodium channels in the postsynaptic membrane and influx of sodium ions from extra cellular fluid. This slight depolarization is called excitation.

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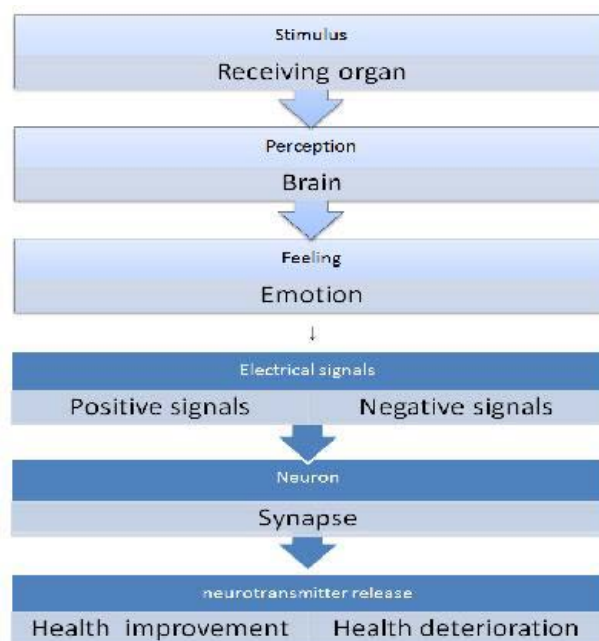
Process of neurotransmission

Common excitatory neurotransmitters are acetylcholine, nor adrenaline, glutamate, aspartate, histamine and nitric oxide. Inhibitory neurotransmitters inhibit the conduction of impulse from the pre synaptic neuron to postsynaptic neuron. When it is released from presynaptic axon terminal due to the arrival of action potential, it causes the release of potassium in the post synaptic membrane and efflux of potassium ions which leads to hyper polarization, also called as inhibition. Inhibitory neurotransmitters calm the brain and help create balance in mood.

Common inhibitory neurotransmitters are dopamine, gamma amino butyric acid (GABA), glycine and serotonin. Different neurons, in different regions of the brain and carrying out different functions, may express different receptors for the same neurotransmitter. This allows the same neurotransmitter to affect neurons in different ways, depending on the type of receptor they display. Each receptor, when occupied, triggers a different kind of reaction within the receiving neuron. All neurotransmitters play some role in behaviour. The neurotransmitters most commonly implicated in behaviour modulation are the small molecular transmitters – acetyl choline, nor epinephrine, dopamine and serotonin.

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Scheme of neurotransmission:



Acetylcholine (ACH): ACH is responsible for much of the stimulation of muscles, including the muscles of the gastro-intestinal system. It is transmitted within cholinergic pathways that are concentrated mainly in specific regions of the brainstem and are thought to be involved in cognitive functions, especially memory. Severe damage to these pathways is the probable cause of Alzheimer's disease. Outside the brain, acetylcholine is the main neurotransmitter in the parasympathetic nervous system – the system that controls functions such as heart rate, digestion, secretion of saliva and bladder function. It causes emotion, reward perception and long term depression. It plays an important role in memory formation.

Serotonin :

Serotonin has an unusually large number of different receptors present on various cells in the brain; a total of 15 receptors, spread across different structural classes. There are two pre-synaptic receptors that are important to behaviour - the serotonin transporter and a regulatory receptor referred to as the serotonin-1 β receptor.

Adequate amounts of serotonin are necessary for a stable mood and to balance any excessive excitatory neurotransmitter firing in the brain. In addition to mood control, serotonin has been linked with a wide variety of functions, including the regulation of sleep, pain perception, body temperature, blood pressure and hormonal activity.

Activities such as eating, grooming, or simply resting and thinking are accompanied by high levels of brain serotonin. But it is also the main chemical messenger used to wake up the cortex and get it involved in decision making. In this role, serotonin is used largely by neurons found in the so-called “raphae nucleus” of the midbrain region, where possible behavioural responses to

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various stimuli are first formulated. These neurons in turn become involved in the future processing and interpretation of the incoming messages, and in selecting an appropriate response.

Low levels of 5-HT and metabolites are associated with depression and especially a type of depression that is more likely to lead to suicide. Serotonin dysfunction has been associated with obsessive compulsive disorder, aggression, eating disorders, and schizophrenia and migraine headaches. Reduced serotonin may induce insomnia and decreased immune system functioning.

The decreased level of serotonin generated by the action of enzyme mono aminooxidase A is associated with violent behaviour and antisocial personality disorder. Increased level of serotonin during early life, caused by decreased activity of this enzyme, seems to be linked with the higher risk of violent behaviour and aggression in the adulthood.

Histamine

Histamine plays role in arousal, phobias, addictions and extreme depression, pain threshold, and regulation of blood pressure

Noradrenaline (NA)

NA is involved in a broad range of psychological functions and behaviours. One of the most important is its role in attention and arousal. It regulates anxiety and negative emotional memory reward perception. NA neurons appear to be involved in the regulation of an organism's vigilance. The broad projection of the locus coeruleus (LC) makes it especially well suited to act as a mechanism to alert cortical and thalamic areas to incoming sensory stimuli. The LC is electro-physiologically quiet during low vigilance states such as sleep or in the lack of sensory input. When exposed to a strong stimulus, the LC markedly increases its firing rate, however. The broad influence of the activated LC is to filter weak stimuli and enhance moderate stimuli. This filtering and enhancement by NA is believed to aid in CNS processing of sensory information.

Noradrenaline alerts the brain of the presence of novel and potentially threatening events in the external environment- brain arousal and body arousal. Under activity of noradrenaline-releasing neurons often accompanies depression. Over production of noradrenalin may generate feelings of anxiety and fearfulness, as if there was a constant threat present in the environment.

Dopamine:

The role of DA systems in motivated behaviour is of particular importance. It is proposed to mediate a performance activating effect of motivated behaviour, as well as conveying internal reward signals. DA is implicated in psychiatric illnesses (especially schizophrenia) and disorders of movement control. Impulsivity usually has a negative connotation because of the harm it can cause not only to the impulsive individual but, through that individual's behaviour, to others. Impulsive acts are often preceded by a period of rising tension, which resolves into a sense of

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relief and well-being once the act is completed. The role of dopamine in impulsive behaviour is most likely tied to its involvement in the brain's system for rewarding particular behaviours..

Dopamine interacts with multiple post synaptic receptors and is assumed to promote slightly different responses in the neuron it serves. Depressed individuals nearly always have low levels of serotonin in their central nervous systems. It is not surprising that impaired dopamine function could contribute to depression. The processing of negative emotions is said to be linked to the release of dopamine in the amygdale, prefrontal and medial temporal areas of the brain. In the central nervous system, high concentrations of dopamine are linked to love alongside attention, motivation and goal-directed behaviour. In addition, the ability to focus, remember, cherish of a beloved indicates that dopamine is involved in this phenomenon. Increased levels of dopamine had indeed been linked to undivided attention. High concentrations of dopamine in the brain had also been associated with euphoria, loss of appetite, hyperactivity, increased mental activity, less likely to feel fatigue, the lack of need to sleep, 'hyperactive fear-like state, anxiety and panic. Dopamine is a neurotransmitter involved in decision- making. It could be hypothesized that alteration of emotional responses in elderly subjects is mostly related to concomitant impairment of DA neurone activity. Intense pleasure experienced when listening to music is associated with dopamine activity in the mesolimbic reward system, including both dorsal and ventral striatum .

GABA:

GABA is involved in sedation, anxiety, and muscle relaxation and tonic inhibition. It acts at inhibitory synapses in the brain by binding to specific transmembrane receptors in the plasma membrane of both pre and post synaptic neuronal processes causing cell cycle arrest in the S phase, limiting growth.

Diseases Associated with GABA include focal epilepsy, which is decreased local GABA-mediated inhibition. Many facets of epilepsy can be elicited experimentally by blocking GABA receptors with the toxin picrotoxin. The decrease in GABA inhibition permits cells to fire synchronously, thus producing massive local excitation and initiation of a seizure. Some finding suggests that some initial imbalance in the GABA ergic system may underlie aspects of this disorder.

Glutamate :

The neurotransmitter glutamate is highly toxic to neurons when present for extended periods. One of the best understood clinical conditions involving glutamate is neuronal injury following stroke or trauma. Derangements in glutamate metabolism or receptor activation have been implicated in a wide variety of pathologic conditions such as Alzheimer's and Huntington's chorea.

Combined Effects:

Together Serotonin, Nor adrenaline and Dopamine are involved in control of many mental states, sometimes acting on their own and other times acting together. Important features they share

include cognitive function, mood, emotion, motivation, appetite, aggression, anxiety. Abnormality in their neurotransmitter activity results in many brain disorders like Parkinson's disease, schizophrenia, migraine, anxiety disorders and depressive psychosis. Nor epinephrine and Serotonin have been implicated to play an important role in sleep.

CONCLUSION

There are different types of neurotransmitters in the brain and each of them has their own effect on the human body. Most people have not heard of several common neurotransmitters, including serotonin, dopamine, nor epinephrine and epinephrine and are familiar with at least some of their functions in regards to mood and sleep.

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- <http://psychology.wikia.com/wiki/Neurotransmitters>.

Academic Stress among Government and Private High School Students

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ABSTRACT

Objectives: 1) To find out whether there is significant difference between the government and private school students. 2) To study the gender difference with regard to academic stress among high school students. **Hypotheses:** 1) There is significant mean difference between government and private school students with respect to academic stress. 2) There is significant mean difference between male and female students with respect to academic stress. **Sample:** Sample of the present study consistent 200 high school students from different schools of Ranchi town. One hundred students were government's high school (male and female) and one hundred were private high school (male and female). **Tools:** Bisht battery of stress scales developed by Bisht (1987) was used to collect data. **Result:** The data have been analysed according to objectives and hypotheses of the research. It was observed that students in private schools have more academic stress than their counterparts in government schools. Female students experienced higher academic stress than male students.

Keywords: Academic Stress; High school students

Stress has become an important topic in academic circle as well as in our society. Many scholars in the field of behavioural science have carried out extensive research on stress and its outcomes and concluded that the topic needed more attention. Stress and anxiety in children and teenagers are just as prevalent as in adults. Negligence of parents, high expectations in academic or other performances, abused childhood, growing up tensions and demand for familial responsibility etc. the main causes of childhood and teen stress. Parents, who are not emotionally available for their children or lack positive coping mechanisms themselves, often spur stress in their offspring. Academic stress is mental distress with respect to some anticipated frustration associated with academic failure or even unawareness to the possibility of such failure. Students have to face many academic demands, for example, school examination, answering questions in the class, showing progress in school subjects. Understanding what the teacher is teaching, competing with other class mates, fulfilling teachers and parents academic expectations. These demands may tax or exceed available resources of the students. As a consequence, they can be under stress, since

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the demand is related to achievement of an academic goal. So, academic related to the achievement of an academic goal. Bisht (1989) has defined academic stress as a demand related to academics that tax or exceed the available resources (internal or external) as cognitively appeared by the student involved. According to her, academic stress reflects perception of individual's academic frustration, academic conflict, academic pressure and academic anxiety. She has given the definition of four components of academic stress as follows: Academic Frustration:- Academic frustration is a state caused by harm of some academic goals. Academic Conflict:- Academic Conflict is the result of two or more mutually incompatible response tendencies to academic goals. Academic Pressure:- When the student is under heavy demands of time and energy to meet academic goals. Academic Anxiety:- Apprehension of harm to some academic goals.

Academic Stress is an important factor accounting for variation in academic achievement. It also contributes to major mental health hazards, problems both physical and mental stress related diseases. Stress makes a significant contribution to the prediction of subsequent school performance and act as a negative predictor of academic performance in school children shows the components of Academic Stress Hussain. Academic Stress is a mental stress with respect to some anticipated frustration associated with academic failure or even an awareness of possibility of such behaviour (Gupta and Khan, 1987).

Academic stress is often the result of the combination of the demands a youngster places on himself or his ability (or 'perceived' ability) and the pressures that come from outside sources such as family, friends or school. The pressure one place on himself is the most significant as there is often a discrepancy between what one thinks he ought to be doing and what he actually does.

CAUSES OF ACADEMIC STRESS

- **Academics** - Alphabetically first among the causes of stress on students is academic pressure. Simply tackling more difficult assignments can demand stress management techniques. It might be wise for teachers to introduce students to this stress with an assignment such as a "Causes of Stress on Students Essay". Requiring students to interview older students and educators, as well as research the Internet on the subject, could help them prepare for the stresses of academic challenges.
- **Parental Pressure** - Finally, students at either level experience stress from parental pressures. Parents want their children to succeed in school. They want to see good grades, but they also want to see success in life's other areas. In their attempts to guide their children, parents can become one of the major causes of stress on students. It is wise for parents and others who work with students to take time to recognize the stresses students face, if they then provide stress management techniques, they will do much to relieve and encourage their students.
- **Environment** - The school environment itself can be a cause of stress on students. Students moving into secondary education find it challenging to constantly move around to classes.

Academic Stress among Government and Private High School Students

Those matriculating to tertiary education are challenged with leaving home and establishing a new life in new setting. Both can cause stress on students.

- **Peers** - Peer relationships can provide estruses or distress. As peers apply pressure in regard to dress, behavior, choice of friends or sic, and many other areas of life, that pressure can become a huge presence of stress on students.

REVIEW OF RELATED LITERATURE

Academic stress is the product of a combination of academic related demands that exceed the adaptive resources available to an individual. Bartwal and Raj (2014) observed no significant gender differences with regard to academic stress and social intelligence among rural and urban adolescents but significant correlation was found between Academic stress and Social intelligence of rural and urban adolescents. Mathew and Jayan (2006) found no difference between boys and the girls of the age group of 15-17 years with respect to their Academic stress. Both experienced more or less similar level of academic stress and employed similar kinds of coping styles. Husain, Kumar and Husain (2008) explored the level of academic stress and overall adjustment among Public and Government high school students and also examined the relationship between academic stress and adjustment. Results indicated that magnitude of academic stress was significantly higher among the Public school students where as Government school students were significantly better in terms of their levels of adjustment. Misra and McKean (2000) conducted a study surveying 249 college students at a Midwestern university. The study showed that anxiety, ineffective time management and a lack of satisfying activities outside of academia were strong predictors of academic stress. The study also showed that while female students managed their time more effectively than male students, they also experienced the highest levels of stress and anxiety. Academic stress can be the ultimate career stopper. Huan, et.al (2005) investigated the role of optimism together with gender, on students' perception of academic stress. Four hundred and thirty secondary school students from Singapore participated in this study and data were collected using two self-report measures: the Life Orientation Test and the Academic Expectations Stress Inventory. Results showed a significant negative relationship between optimism and academic stress in students. Gender was not a significant predictor of academic stress and no two-way interactions were found between optimism and gender of the participants. Neelam and Attri (2013) have attempted to find out the academic stress and academic achievement of secondary school students. It was hypothesized that there exists a significant difference in academic anxiety and academic achievement of male and female secondary school students. For verification of these hypotheses, the data was collected from 200 secondary school students of Mandi district of Himachal Pradesh by adopting lottery method of random sampling by administering 'Academic Anxiety Scale for Children (AASC)' and their marks of class 9th were taken as academic achievement. The statistical technique used was t - test. The findings of the present study revealed that there exists significant difference in academic anxiety and academic achievement of male and female secondary school students. Girls found to be more academically anxious and had better academic achievement than boys.

METHODOLOGY

The aim of this section is to clarify the methodology of this research. This gives an account of the objectives, hypotheses, research sample, and the research tool that were used for data collection.

Statement Of The Problem

‘Academic Stress among Government and Private High School Students’.

Objectives

- To find out whether there is significant difference between the government and private school students.
- To study the gender difference with regard to academic stress among high school students.

Hypotheses

- There is significant mean difference between government and private school students with respect to academic stress.
- There is significant mean difference between male and female students with respect to academic stress.

Sample

The study was conducted on a group of (200)10th grade adolescent students from four schools – two government and two private in Ranchi town. Out of 200 students, 100 were taken from government school (50 male + 50 female) and the remaining 100 were taken from private school (50 male + 50 female).

Variables

1. Dependent variable: **Academic Stress.**
2. Independent variables: **Types of school and Gender**

Research Tool

BISHT BATTERY OF STRESS SCALES (SCALE OF ACADEMIC STRESS -SAS) -This battery of stress scales was developed by Bisht (1987). It measures exclusive stress types having all the four components of stress, i.e., frustration, conflict, pressure and anxiety in them. This battery consists of thirteen scales which measures thirteen types of stresses viz., Existential Stress, Achievement Stress, Academic Stress, Self-Concept Stress, Self- Actualization Stress, Physical Stress, Social Stress, Role Stress, Institutional Stress, Family Stress, Financial Stress, Vocational Stress and Superstition Stress. Of these thirteen scales, the Scale of Academic Stress will be used. There are total 80 items in the Scale of Academic Stress. The battery of scale is in Hindi and the age group on which it was standardized is 13+ to 17 years. The internal consistency reliability coefficient of SAS is .88.

Academic Stress among Government and Private High School Students

Statistical Techniques

Statistical analysis was done by applying Mean (M), Standard Deviation (SD) and t-test.

RESULTS AND DISCUSSIONS

To attain the objective of the study and to verify the formulated hypotheses the data were analyzed. To meet out the purpose of the study mean, SD was calculated. 't' value was calculated to test the significant difference between the means of the groups.

Table 1: Comparison of academic stress among government and private high school students

Group	N	Mean	SD	Md	t-value	Level of significance
Government School students	100	271.52	87.62	28.17	2.19	0.05
Private School students	100	299.69	93.76			

Figure 1: Mean scores of government and private high school students on academic stress

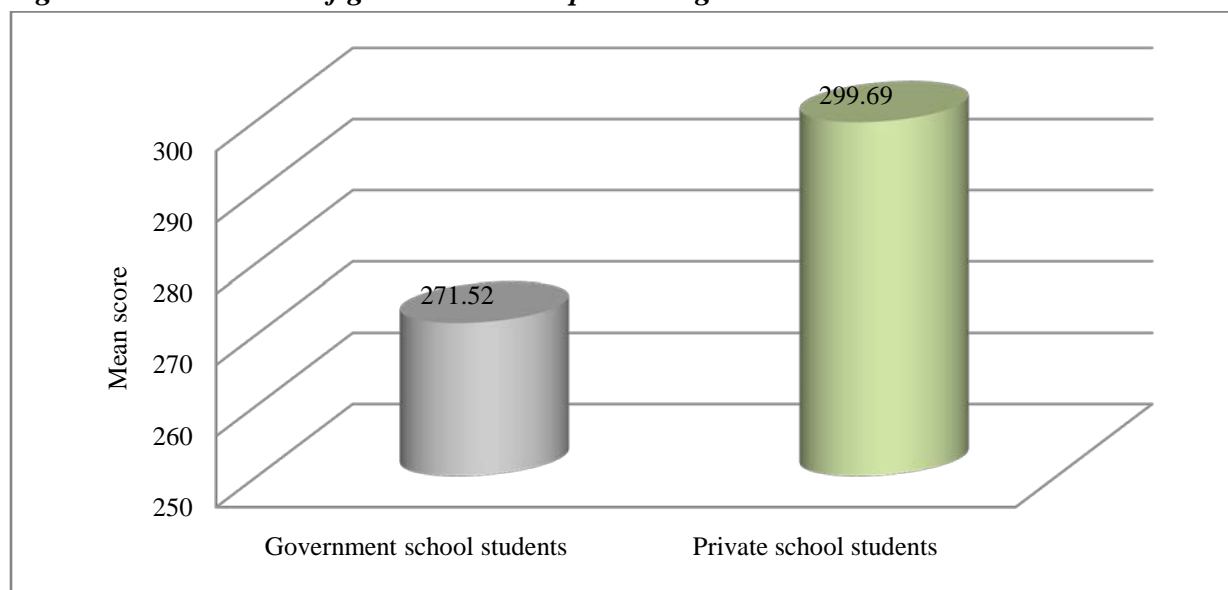


Table 1 and figure 1 indicates that adolescents studying in government schools had mean academic stress score of 271.52 and adolescents of Private schools had mean score of 299.68. The observed t value was 2.19 which was found to be significant at 0.05 level. It can be said that there exists significant difference between the groups under study on academic stress measure. It is quite clear that adolescents in private schools have more academic stress than their counterparts in government schools similar to the findings of Hussain et al (2008).

Academic Stress among Government and Private High School Students

Table 2: Comparison of academic stress among male and female high school students

Group	N	Mean	SD	Md	t-value	Level of significance
Male	100	270.74	85.74	43.74	3.18	0.01
Female	100	314.48	107.33			

Figure 2: Mean scores of male and female high school students on academic stress

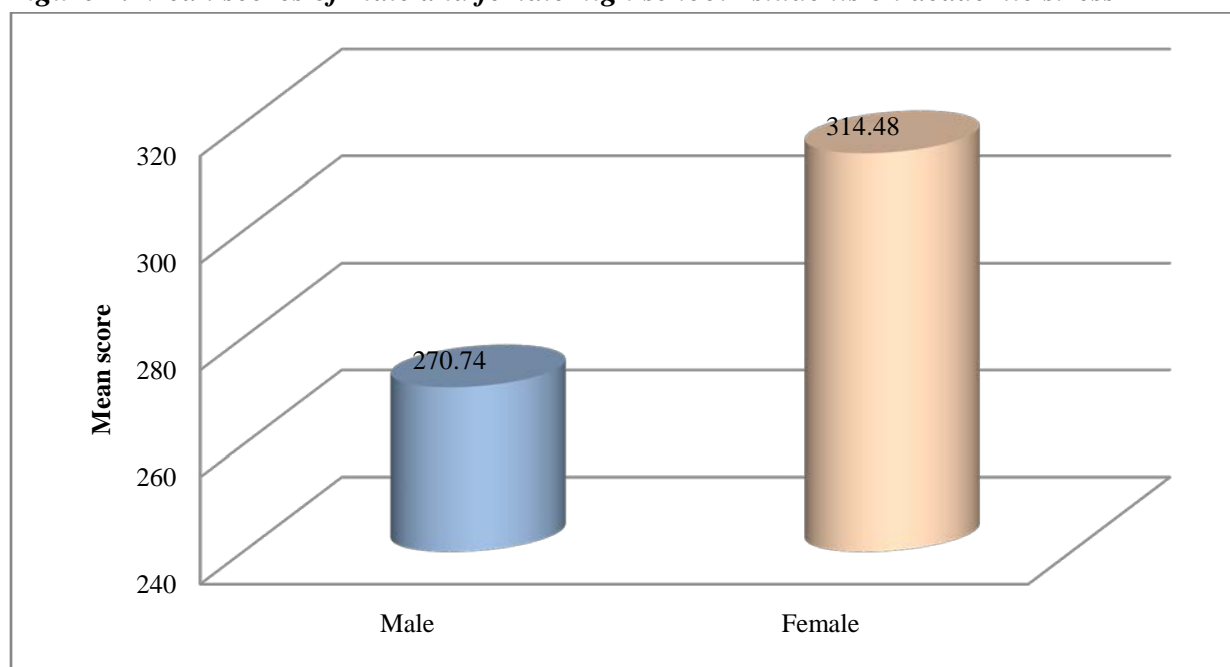


Table. 2 and figure 2 indicates that the mean score of male adolescents was 270.74 whereas mean score of female adolescents was 314.48. The calculated 't' value comes out to be 3.18. When compared with table value, it indicates that the calculated value was higher than the table value 2.60 with df 200 at 0.01 level of significance. So the mean difference was significant. Female subjects were found to be under more academic stress as compared to their male counterparts. This may be due to the fact that females are sensitive & sincere by nature and take everything very seriously whereas males are generally easy going and happy go lucky.

CONCLUSIONS

As academic stress was found to be more prominent among the students of private school than government school. From the findings it may also be concluded that, female students experienced more academic stress than their male counterparts.

LIMITATIONS OF THE STUDY

The sample of the study was too small. This finding cannot be generalized. Another limitation is the sample consisted of high school students only.

SUGGESTIONS FOR FURTHER STUDY

This research study was conducted on the adolescents of high schools. It is suggested that the same research may be conducted from primary level up to university level. Future research should use larger sample size.

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Comparative Study of the Teachers Views about Selecting Appropriate Content for Social Studies Textbook of Primary School Third Grade, Iran

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ABSTRACT

Background: Textbook, which is one of the most important sources of the students learning in the educational systems also play an important role in the educational system of Iran. **Purpose:** This study was conducted to compare the views of male and female teachers and authors in the selection of appropriate content for Social Studies textbook of the primary school third grade. **Method:** the present study was conducted in the form of causal-comparative study using a questionnaire and the analysis of its items. Two groups of 107 male and female teachers teaching in public schools, private and Shahid schools of Tehran were selected using cluster sampling. Further, 6 authors of Social Studies book working in the Research and Educational Planning Organization of the Ministry of Education were selected based on their experience using targeted sampling method. Considering the nature of the questionnaire, 32 items developed by the researchers were completed by the research participants. The collected data were analyzed using nonparametric chi-square and Yates' correction for continuity tests in the software SPSS 19. **Results:** results of the study showed that there was no significant difference between the opinions of female and male teachers and authors. **Findings:** findings of the study showed that there was no significant gap in both scientific and ideological terms among the textbooks authors and teachers. Further, the sex of the teachers could not have any effect the difference in attitude toward the content of the books and this endorses the integrity of the education system.

Keywords: Comparison of the Teachers Views, Social Studies, Teachers' Views, Content Analysis, Primary School, Ministry Of Education

Education has long existed in human societies and human beings have considered education throughout history. Training program includes all the experiences, studies, discussions, group activities, individual and other actions that students do under the supervision and guidance of a teacher. Various aspects of student growth, talent, ability and their fitness for social life

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constitute the basis of school educational programs (Shariatmadari, 2007).

The major issues in the provision of education and training programs is to identify targets based on which the educational and training activities are designed and all those who somehow deal with education are quite acquainted with the educational goals. After explaining the educational goals in each educational course and setting new program, one has to act toward changing and selecting the appropriate content according to the purpose of the action.

In fact, the content is the core of any education program and has always been of interest to the experts. Thus, having appropriate content makes the accomplishment of the goal possible. Teachers, officials, planners and experts always arises question about the content of textbooks. For example, they ask “what course or subject should be taught?”, “How can it be taught?” and finally, “why should it be taught?” As it is known, the educational system in Iran has been based on textbooks and school is a part of the children world. They should learn the content of the book, so the content of the book is an important element of the curriculum. This research can be used by teachers, administrators and authors as well.

METHODOLOGY

The present study is conducted based on the comparative-descriptive method which is the comparison of the male and female teachers’ view with the authors view about the textbook contents.

Research Population and Sampling Method

Population of the study included all the male and female teachers of the primary school in the 19 districts of Tehran, Iran in the Social Studies of the third grade and all the authors of the book working in the Research and Educational Planning Organization of the Ministry of Education. Considering the research nature, research participants were selected using cluster sampling method. For this purpose, three schools have been selected from each district and then the questionnaires were distributed among male and female teachers. After collecting the questionnaires and examining the required criterion, 107 questionnaires were included in the research. Further, 6 authors were selected based on targeted selection from among the authors working in the Research and Educational Planning Organization of the Ministry of Education based on the abilities considered by the researcher.

Method of Data Collection

The present study was conducted by performing the administrative procedures and direct visits with the research scholar of the selected schools. After coordination with school principals, questionnaires were distributed between male and female teachers and then were analyzed. In order to collect the data related to authors of social studies textbooks of the third grade. For required coordination, the researcher contacted the curriculum office of the Department of Social Studies Ministry of Education.

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In order to extract the criteria for content selection, the opinions of the male and female teachers were examined via questionnaires and then were compared with the opinions of the authors. For this purpose, perfectly acceptable criteria were the answers with higher than the 65% approval. The acceptable criteria for answers were those approved over 50% to 65%, respectively, and finally criteria for weak responses were those with lower than 50% approval, respectively. Then the common responses were analyzed and theoretical model was offered about the content of the courses.

Research Instrument

The instrument for data collection used in this study consists of a questionnaire designed as below:

Questionnaire of the male and female teachers

Questionnaire of the male and female teachers included 32 items based on a five-point Likert scale with five choices in response including very high, high, low, very low and ineffective. The items of the questionnaire fall into two general categories which are mostly related to content and small part of the questions is related to the learning experiences. The content questions include lesson content and some final questions at the end of the lesson.

Questionnaire of the authors

Questionnaire of the authors included 32 items based on a five-point Likert scale with five choices in response including very high, high, low, very low and ineffective. The items of the questionnaire fall into the content rather than the learning experiences.

Both the validity and reliability of the questionnaire were evaluated and its reliability using Cronbach's alpha coefficient was estimated as 0.78 and hence was not acceptable (Khosravi, 1997).

Method of Data Analysis

In order to analyze the data, descriptive and inferential statistics were applied. The research computing in the descriptive statistics included the determination of the frequency and percentage of female and male teachers' responses to the questionnaire and the analysis of the responses of teachers and authors of the textbooks on each questions of the questionnaire.

The Chi-square test was used for analysis of the inferential data in order to determine the relationship between male and female teachers as well as teachers with the authors of the book social studies for third grade in responding to the questions and determining the statistical significance of differences (Shivellson 1987).

Since the expected theoretical frequency of some choices was less than 5, they were merged so the high and very high options were set in one group and very low, low and ineffective in another group. Data contingency table 2×2 was set with one degree of freedom. If the frequency of each group was less than 10 the modified Yates formula was used (Sharifi and Zand, 1991).

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RESULTS

Table 1: Percentage of male and female teachers about appropriate content

Item	Male %	Female %
Having a logical path and sequence	88/45	89/08
To understand the content	76/92	83/62
Understanding the rules and regulations of society	76/91	76/36
The impact of the teacher teaching methods on better learning	74/99	72/92
Considering the purpose of educational content	71/15	72/72
Interest in learning	67/30	70/90
Considering the environmental, cultural and geographical variety	67/29	70/90
Considering the general requirements of living	63/45	59/99
Strengthening the social harmony and attention to ideas	61/53	56/36
Considering the need for social and mental abilities	57/68	54/54
Developing the spirit of cooperation	53/85	54/53
Considering the age characteristics	53/84	52/71
Considering new concepts and content not to approving the acknowledge of the previous books	50	50/90

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Table 2: percentage of agreed opinions by the authors of textbooks

Item	Percent
Dominance of the culture and Islamic values	100
Direct path and logical sequence of the content	83/34
Environmental, cultural and geographical diversity	83/33
To understand the content	83/32
Content based on educational goals	66/67
Being in accordance with the social rules	66/66
Considering the age characteristics	66/16
Strengthening the curiosity and research	60
Accepting the status quo	60
Interest in learning	50
The impact of the teacher teaching methods on better learning	50
Strengthening social adjustment	50
Considering the mental abilities	50
Association with higher core modules	50
Considering the psychological needs	50
considering the lower core modules	50

Table 3: Comparison of male and female teachers in frequency of opinions

Choice	High	Low	Sum
Male	29	26	55
female	32	20	52
Sum	61	46	107

Because the chi-square value at the error level of 0.05 with degrees of freedom equal to 1 was calculated as 0.846 and was smaller than the given value in the table, the null hypothesis is accepted. So there is no significant difference between male and female teachers' opinions.

Table 4: Comparison of teachers and authors

Choice	High	Low	Sum
Male	65	42	107
female	2	4	6
Sum	67	46	113

Because the chi-square value at the error level of 0.05 with degrees of freedom equal to 1 was calculated as 0.815 and was smaller than the given value in the table, the null hypothesis is accepted. So there is no significant difference between the opinions of teachers and those of authors.

DISCUSSION

This study aimed to examine the content of social studies textbooks of primary school in Iran by comparing the opinions of the male and female teachers and authors on the selection of appropriate content. In order to explain the research findings and providing a basis for presenting research results, an overview of the research background in the area of content analysis has to be provided. The ultimate goal was to improve the social studies program and conditions should be planned not only in the classroom but also in society at national and international levels for the development of intelligence, responsibility and leadership of the citizens. The content selection is an important task which needs further studies.

Tabari (1974) in a study entitled as “A comparative study of social understanding among elementary students in three groups of urban, rural and nomadic” , in a sample of 1,633 students in third grade and fifth grade, compared the social knowledge of the students considering the factors important in access to the media, teachers, social and culture class, language and their habitat.

The results showed that the level of social and political trust in urban students was more than in rural and nomadic students. Mirlohi in an article entitled as “In Search of the criteria for choosing the content” mentioned three critical criteria: 1. Content is important for the present or future life. 2. Content must be important for the present and future employment situation. 3. The content of the sample is an essential origin. Hassan Maleki in a study considered the main criteria for selection of content as credit and interest in learning, usefulness, ability to learn, flexibility, attention to structure, content knowledge, according to the preservation and promotion of cultural heritage and value system, establish and strengthen the scientific basis for continuing education, self-directing, communicating with daily life activities and create opportunities for learning multiple skills.

Another study entitled as the “Evaluation and comparison of elementary school social studies programs in Germany, the United States and Australia” have shown that the US primary school social studies programs were better than Australia and in Australia was better than Iran (Maleki, 1989). In addition, in the study as the “content analysis of the geography as a guide, based on Bloom's taxonomy of cognitive behavioral objectives” by Mohamadian, the role and importance of activities aimed at education were emphasized. In a study by Ali Akbar Khosravi about the criteria for selection of content and learning experiences in social studies on a sample of 240 junior teachers in Tehran, showed that the selection of content, the objectives, the proper balance between depth and course content, the creation of logical thinking, scientific spirit, interest in learning should be considered.

LIMITATIONS OF THE STUDY

Since the limitations of the research are highly important. The limitations have been divided into two parts, one for the researcher and the other one was out of control of the researcher. A - the

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limitations of the research: (1) limiting the study to the third-grade social studies teacher (2) limiting the statistical population to nineteen regions in Tehran and (3) limiting the statistical population to practitioners and authors of textbooks of the third grade social studies book contents.

B) Limitations out of the researcher control included

1. The limitation of sampling; 2. No timely access to teachers due to their presence in the classroom; 3. Dispersion and differentiation of schools and districts which makes it difficult to have access to more schools at different times; 4. the communication problems with schools of female students due to Islamic and school principals.

Recommendations for future research

The course Social Studies is a complement to other courses, so that it should be considered by other courses so that the interactive effects can be evaluated. It is required that the future studies use a wider range of teachers and authors of textbooks and teaching experience should be considered as an index in the selection of teachers as an important component.

Acknowledgments

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Conflict of Interests

The author declared no conflict of interests.

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Internal Consistency Reliability of Career Decision Making Difficulty Questionnaire

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ABSTRACT

The purpose of the present study was to test the internal consistency of Career Decision Making Difficulty Questionnaire (CDDQ) developed by Itamar Gati and Samuel H. Osipow (2010) among student population in India. Two hundred students studying in 7 schools and 1 college in Coimbatore city completed the Career Decision Difficulty Questionnaire between the age group of 14 to 20 years. The responses were collected and the data was subjected to statistical analysis to test internal consistency. The Cronbach's and Spearman Brown Coefficient value shows high reliability. The results indicated CDDQ as a reliable instrument for assessing career decision making difficulties among the students of Indian population. Further study among student population in other states of India is recommended for validation.

Keywords: *Career Decision Making Difficulty, Reliability, Students*

Career is the vital aspect of human life. In the global scenario, the youth of today are experiencing wide range of career opportunities in India. There exist a broad scope of exploring new jobs emerging with rapid growth of science and technology. The career that was considered as most significant in earlier days is becoming less popular due to advancements in the field of education. The courses offered by the educational institutes have wide options that enable the adolescents to explore, learn, think and invent. It becomes important that the adolescents need to make the right career choice for a fulfilling career life. Hence there is a deep sense of urgency to educate and to equip the younger generation to adapt to the career choices of the new era. Hence making the right career decision has become the need of the hour.

According to Kelly & Lee (2002), the domain of career decision problem has not been adequately explored. It is noted that nearly 40% of youth are not aware of where they need to seek help in their decision making and 38% state that they need to go to many places to get information and trustworthiness of information sources is of high relevance (Julien, 2004). The

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information on career opportunities with more clarity needs to be implemented at educational institutions. The choice of career is a most crucial challenge among students as students were not aware of realistic type of careers where they use hands, tools and machines and they lack self knowledge on career interests (Sikhwari, 2015). In a study on the effectiveness of sources of support in career decision making among university students, 65% indicated difficult to choose a field of study and 46% stated they intended to seek help. (Vertsberger & Gati, 2015). There exists a direct relationship between decidedness and subjective well being and hence career interventions should aim at increasing decidedness among the first year college students. (Uthayakumar, Schimmack, 2010).

As Career undecided adolescents exhibited poorer career, well being and social outcomes than the decided students (Creed, Prideaux, 2004). It is noted that various factors influence the career decision making of adolescents in India. The socio economic background and social cognitive environments influence career development in India with lower socio economic status groups showing higher level of negative career beliefs (Arulmani, Larr, Easton, 2003). Career choice is also influenced by skills, competencies and abilities as the most important factor and “father” was the most significant among management Indian students (Agarwala, 2008). According to Gokuladas, (2010) the decisions of engineering students first career choices are influenced by intrinsic than extrinsic reasons with male students influenced by intrinsic reasons and female students by extrinsic reasons. Therefore there is a need to identify the Career Decision Making Difficulty and the present study aims to validate the questionnaire on Career Decision Making Difficulty (Gati and Osipow, 2010) to student population in India.

Career counsellors should attend to the challenges students face in relation to making career decisions so as to reduce their level of indecision. The graduate students are inadequately prepared for career due to lack of knowledge on the graduate labour market as they show reluctance to use formal sources of information as university career service. Hence counselors need to address the negative career thoughts among college students encountering career and life stress as increase in negative career thinking resulted in lower level of decidedness and satisfaction with career choice. (Yowell, Peterson, Readrdon, Leierer, Reed, 2011). The career services need to encourage students to reflect on how to undertake career decision making and planning.

METHOD

The present study aims to test the internal consistency of Career Decision Making Difficulty Questionnaire (CDDQ) among school and college students in India.

The 34 item Career Decision Making Difficulty Questionnaire developed by Itamar Gati and Samuel H. Osipow (2010). The rationale underlying the taxonomy of CDDQ was proposed by Gati, Krausz, and Osipow (1996).

Internal Consistency Reliability of Career Decision Making Difficulty Questionnaire

The taxonomy of Career Decision Making Difficulty Questionnaire was proposed by Gati, Krausz and Osipow (1996) based on the decision making and information processing theories. The CDDQ involves assessing Career Decision Making Difficulty based on two distinctions. The first distinction is between difficulties arising before beginning the career decision making process as difficulties involving a lack of readiness and the second distinction are those that arise during the process as lack of information and difficulties in utilizing the information due to information consistency.

The study involves random sampling technique that comprised of 200 samples representing from 7 schools and 1 college between the age group of 14 to 20 years with the mean age as 17.9 years. 15% in the age group of 14-15 years, 18.5% in the age group of 16-17 years, 39.5% in the age group of 18-19 years and 27% in the age group of 20 years. Boys represent 59% and girls represent 41% in the representative sample.

Procedure:

The study was conducted in three sessions among school children and college students. In the first session, 50 school children were the samples and were administered the Career Decision Making Difficulty Questionnaire. Session two was conducted among 50 college students and session three among 100 college students. The instructions were given in each session to respond to the statement that best describes them. The samples responded to the 34 items in the printed format questionnaire by reading each statement and responding by putting a circle mark corresponding to the statement that applies to them. The responses were collected and the data was subjected to statistical analysis.

RESULTS

To examine the reliability of Career Decision Making Difficulty Questionnaire (CDDQ,) the Spearman Brown Coefficient and Cronbach's Alpha among student population in India was analyzed.

The results for the present study are depicted in the table given below:

Method	Nos.	'r'
Cronbach's Alpha	17 items (Part 1#)	.749
	17 items (Part 2 #)	.890
Correlation between forms		.723
Spearman-Brown Coefficient	Equal length	.839*
	Unequal length	.839*
Guttman-Split Half Coefficient		.820

Part 1: Questions from 1 to 17

Part 2: Questions from 18 to 34

The Cronbach's alpha value is found to be .74 for part 1 set of items (17 nos.) and .89 for part 2 set of items (17 nos.) The Cronbach's Alpha reliability coefficient normally ranges between 0

Internal Consistency Reliability of Career Decision Making Difficulty Questionnaire

and 1. The present values of .74 and .89 indicate good internal consistency reliability. There exists a good correlation between the two sets of items as the correlation value is found to be .72. The Spearman-Brown Coefficient value of equal and unequal length represents .839 and the Guttman Split half coefficient is .820 pointing that Career Decision Making Difficulty Questionnaire has high internal consistency reliability. Career Decision Making Difficulty Questionnaire is a reliable instrument that can be administered among Indian population.

LIMITATION

The study was limited to 4 schools and 1 residential college in Coimbatore city. Hence the results obtained cannot be generalized to the entire population.

CONCLUSION

The study shows that Career Decision Making Difficulty Questionnaire is a reliable tool that can be used among student population in India. Further studies are needed to confirm the use of CDDQ among various student populations located in different states in India.

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Parietal & Occipital Lobe Syndromes:

Neuropsychological Approach

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ABSTRACT

Neuropsychology is the scientific study of the relationship between brain and behavior. It bridges the disciplines of neurology and cognitive psychology and seeks to describe and explain how cognitions, emotions and behavior are mediated by different processes in brain. In clinical settings, different neurological and psychiatric disorders effect psychological functioning of the patients in terms of information processing, sensory-perceptual processes, attention, execution and other order brain functions.

Neuropsychological functioning can be assessed by various sets of neuropsychological batteries available in India. It helps to understand the patients' neuropsychological deficits and strengths too. The neuropsychological functioning helps in formulating cognitive retraining and holistic management of brain related and psychiatric disorders. The term syndrome entails the group and cluster of symptoms associated with any clinical condition. This paper will briefly focus on the anatomy, functions and various syndromes associated with parietal and occipital lobes and their corresponding neuropsychological issues.

Keywords: *Syndromes, Parietal and Occipital Lobes, Neuropsychology*

Neuropsychology is the scientific study of the relationship between brain and behavior. It bridges the disciplines of neurology and cognitive psychology and seeks to describe and explain how cognitions, emotions and behavior are mediated by different processes in brain. Joseph Gall, a German anatomist and physiologist, initiated the notion of phrenology which attempts to study human personality by studying the size and shape of human skull. It paved the way to the study the relationship of brain to different behavioral aspects. His study of phrenology, though, appeared pseudoscience, later helped establish psychology as a science (Davies, 1955). Gall's work helped in paving the study of brain lateralization- localization process.

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The brain is splitted into the left and right hemispheres by a bundle of tissues known as corpus callosum. The largest part of the human brain is the cerebral cortex. The very back part of the brain contains the cerebellum (little brain), which is attached to the hindbrain. The Cerebellum has been implicated in the planning and execution of movement and recent work in neuroscience has shown that cerebellum is also involved in cognitive functions (Schmahmann,1997). Midbrain consists of parts known as put amen, substantial nigra, and glob us pallid us. Mid brain is implicated in Parkinson disease and schizophrenia. Forebrain is the largest part of the brain and is broadly involved in intellectual and higher cognitive functions. Each hemi-sphere is divided into four lobes namely, frontal, parietal, occipital and temporal. This paper will focus on the brief anatomy, function and syndromes associated with parietal and occipital lobes.

Neuropsychological Batteries in India

The term battery refers to a group of tests which assesses any specific domains of behavior. In India, the most common neuropsychological batteries used by professional's psychologists are as follows.

1. *NIMHANS Neuropsychology Battery- New Battery* : NIMHANS Neuropsychology Battery was developed by Rao, Subbakrishna, & Gopukumar in 2004. It was developed at National Institute of Mental Health & Neurosciences, Bangalore in 2004. It is a comprehensive neuropsychological assessment which is being carried out by a trained clinical psychologist or a clinical neuropsychologist.
2. *AIIMS Comprehensive Neuropsychology Battery*: This was developed by Gupta, Khandelwal and Tandon in 2000. It has 160 items to evaluate various neuropsychological funtions.
3. *PGI Battery of Brain Dysfunction (PGI-BBD)*: It was developed by Pershad and Verma in 1990. It has five subtests which evaluate brain dysfunction. Immediate, recent, remote and recognition memory are assessed. It also evaluate attention and concentration, verbal intelligence, information, digit span and arithmetical skills are also measured.
4. *NIMHANS Neuropsychology Battery- Old Battery*: It was developed by Mukundan in 1996 by compiling various tests related to brain function. The battery assess lobe functions with subtests including ideational fluency, kinetic melody, attention, scanning Bender Gestalt Test,, visual memory and learning. It uses idiomatic approach for clinical assessment.
5. *Neuropsychological and Achievement Battery for Children*: This battery assesses neuropsychological abilities, intellectual and cognitive abilities, achievement and learning. It was developed by Preeti Singh and Masroor Jahan in 2006.
6. *NIMHANS Neuropsychological Battery for Children* This battery was developed by Bhoomika Kar and Shobini Rao in 2004 for assessing neuropsychological functions of children with clinical behavioral, emotional and cognitive issues. It can be used with children with the age range of 5 to 15 years.

Some of the commonly used neuropsychological tests are Digit Vigilance Test to assess sustained attention, Digit Symbol Substitution Test to assess visual motor coordination, response & mental speed. It also gives an idea of information processing speed, Token Test to evaluate verbal comprehension, Animal Fluency Test to assess verbal fluency, Stroop Test to assess response inhibition, Wisconsin Card Sorting Test to assess abstract reasoning and set shifting, N Back Verbal 1 and 2 measures working memory, and Tower of London measures planning skills and self-monitoring and self-correction.

Parietal Lobe: Anatomy and Functions

The parietal lobes lie posterior to the central and above the Sylvian fissure posteriorly it is divided from the occipital lobe by the imaginary extension of the parieto occipital sulcus on the lateral surface. It is divided into the post central gyrus, the superior parietal lobule, the inferior parietal lobule, the supramarginal gyrus and the angular gyrus.

The post central gyrus mediates somatosensory sensation bodily sensation is represented as a homunculus. A larger cortical surface is devoted to extremities and the lips. The areas adjoining the post central gyrus form the somatosensory association cortex. Lesions cause abnormal sensations like numbness. Tingling body image disturbances such as extinction, obscuration or displacement of touch sensation may be present. The displacement can be proximal or distal. It can also be felt outside the body, i.e., exteroesthesia or on the contralateral side (alloesthesia). Touch on two adjacent places may be perceived as one. Two point discrimination is lost when the distance between the two points is perceptible to the normal individual, but not to the parietal lobe patient, body image disturbances may be unilateral or bilateral. Unilateral disturbances are caused by lesions in the contralateral parietal lobe. Bilateral disturbances are caused by lesions in the dominant or left parietal lobe. Lesions of the somatosensory cortex and the adjoining association areas can further cause metamorphopsias. These are distortions of body sensations such as feeling of lightness, heaviness, levitation and elongation.

The posterior parietal lobes are adjacent to the occipital lobes. Processing of the visual stimulus continues in the parietal lobe. The parieto occipital areas are involved in the processing of figure ground relationships. Perception of form, texture, absolute and relative size and distance as well as in the location of objects in visual space. These visuo spatial relations are important for the perception of the total form in a visual stimulus or for the perceptual gestalt. Lesions of the parieto occipital areas cause disturbances of form perception. The perceptual analysis of visual forms in terms of their shape, size, texture or distance is disturbed. Thus perceptual gestalt is also affected. These disturbances are associated with lesions in the non dominant or right parietal lobes.

Syndromes of Posterior Lobes

Constructional Apraxia

Construction of two dimensional or three dimensional forms are disturbed in parietal lobe lesion, again more often when the lesions are in the non-dominant parietal lobe. Constructional apraxia for two dimensional figures is present when the patient is unable to copy simple geometrical figures. Distortion rotation micrographia (the drawing is reduced in size) and macrographia (the drawing is enlarged in size) may be present. Constructional apraxia for three dimensional figures are present when the patient is unable to construct three dimensional forms. The placement of either blocks or sticks even in the simple form of a square may not be possible. In the next stage, if forms are constructed they may be rotated. The form may also be constructed on the design itself, qualifying for the closing in phenomenon, the patient may or may not benefit from cues. Usually constructional apraxia is associated with lesions of the right parietal lobe. If the patient substantially benefits from cues, it can be lateralized to the left parietal lobe. It can be assessed through complex figure and block design tests.

Holmes's Syndrome

Disturbances in the perception of absolute distance from oneself to an object is known as absolute localization. The distance between two objects external to oneself is relative localization. Both these can be disturbed in right parietal lesions. These deficits are manifest when the patient is unable to grasp an object extended to him/her. The reaching movements are not accurate. It appears as if the patient has poor eyesight. Size constancy is lost. The patient perceives the bigger objects as nearer and the smaller objects as farther.

Agnosia

Lesions of the left angular gyrus or disconnection of this area from the occipital lobes results in an inability to recognize familiar objects through the visual modality. The patient is able to recognize the object through another modality such as touch. This deficit is termed as visual object agnosia. Understanding of a complex scene or a picture may be impaired as in *simultanagnosia*. The patient is able to describe the picture in parts, but is unable to sum up the totality of a scene. Recognition of objects through touch is impaired in parietal lesions, known as tactile agnosia or *astereognosis*. Familiar objects placed in the hand are not recognised. The deficit may be unilateral wherein the lesion is in the contralateral parietal lobe. If it is bilateral, the lesion is in the left parietal lobe. Finger agnosia is another condition wherein the patient is unable to name or identify the fingers which are touched. The patient is unable to identify his/her own fingers and the fingers of the examiner. This is an inability to recognize body parts, is bilateral in nature and associated with left parietal lesions. *Anosognosia* is an inability to recognize a paralyzed limb as belonging to oneself. *Prosopagnosia*, the inability to recognize familiar faces visually is associated with right parietal lesions. The patient can recognize the same person through the clothes, voice or the silhouette. Recognition is absent when the face is seen. The patient may even be unable to recognize his own face in the mirror.

Right parietal lesions are associated with disturbances of visual memory. The localization is to right parietal area when the memory disturbance is for simple visual forms. Memory of places or locations i.e., topographical memory is disturbed in right parietal lesions. The patient is unable to locate familiar places on a map. Independent of the memory deficit, patients with left parietal lesions get lost in familiar surroundings which are termed as *route finding difficulty*. It can occur even in their own homes, the patient is able to verbally recall the route but gets lost while traversing it. The deficit is hypothesized to arise from another parietal deficit which is left-right disorientation. Here the patient gets confused between the left and right sides. Identifying one's left or right side is difficult. The patients are confused when asked to identify the examiner's left or right side.

The left parietal lobe, in particular the angular gyrus is important for writing, reading and calculation, the semantic lexicon is situated here. Lesions cause damage to the lexicon following which comprehension of oral and written language is affected. This condition is the *apraxic aphasic alexia*. If the angular gyrus is disconnected from the visuo perceptual centers of the occipital lobe, only *alexia* is present. It is characterized by impaired reading. Disconnection for the left angular gyrus from the motor engrams situated in the inferior parietal lobule results in *agraphia*. Writing difficulty or *agraphia* may be part of visuo perceptual disorders when it is known as *spatial agraphia*. If the patient is unable to write because of inability to construct two dimensional figures, then it is known as *apraxic*. Difficulty in calculation or *acalculia* has two components, *spatial acalculia* is present when the patient is unable to place numbers properly and is associated with right parietal lesions, difficulty in arithmetic is associated with left parietal lesions. *Gerstman's syndrome* is associated with left parietal lesions, specifically of the angular gyrus. It consists of *acalculia*, *agraphia*, *finger agnosia* and left-right disorientation.

Unilateral Spatial Neglect

An important sign of right parietal lesions is unilateral spatial neglect or hemi neglect or hemi inattention. Visual attention is not allocated voluntarily to one half of space. The patient is able to attend to it if the attention is drawn to this area verbally. Spontaneously attention is not allocated to the side contra lateral to the lesion. The neglect is usually present on the left half of space. The lesion is in the right parietal lobe. Visual attention is an important function mediated by the right parietal lobe. The right dorsal parietal lobe disengages attention in visual space, if this disengagement does not occur, attention is fixated to one area and other areas are neglected. The attention disengagement results in the patient neglecting all aspects of the contra lateral space. The patient does not see objects on the neglected side and bumps into them. Dressing of one half is neglected. Drawings omit the left half of the figure. Touch is not felt when it is in the left half of the body. Hemi-inattention can occur in right occipital and right frontal lesions also.

Pathology of Emotions

The right parietal lobe is hypothesized to mediate emotions. Normally the right frontal lobe inhibits the right parietal lobe. Lesion of the right frontal lobe removes this inhibitory influence.

Excessive emotions result as in mania or affective disorders. Electroencephalographic (EEG) recordings show the right hemisphere to be more active than the left during emotional stimulation. Dysfunction of the right hemisphere is associated with affective disorders. Studies conducted on stroke patients have indicated that emotional processing is largely lateralized to the right hemisphere. Positive affect is mediated by the left hemisphere. Hence damage to the left hemisphere particularly the left frontal lobe is associated with depression. Negative affect is associated with the right hemisphere. Damage to the right hemisphere reduces the negative affective coloring of experience. The result is a disproportionate positive affect resulting in mania. Normal emotions are the outcome of a balanced processing between the two hemispheres.

Sensory Template

Polymodal association cortices of the cerebral cortex are present in the parietal lobes. It is connected to the frontal lobes and to the limbic system. Thus, it is hypothesized that the sensory template of the environment is constructed on a moment to moment basis by the parietal lobe. Its specialization for visuospatial attention spatial cognition as well as the polymodal association area enables it to scan the environment adequately and construct the sensory map. Thus while the frontal lobes are known as the executive centers of the brain the temporal lobes are known as the integrative centers of the brain the parietal lobes construct the sensory template of the world in a dynamic fashion.

Occipital lobe: Anatomy and Functions

The occipital cortex occupies the posterior part of the cerebral cortex. It lies above the cerebellum and is posterior to the parietal and temporal cortices. There are three Brodmann areas in this cortex. The most posterior of these is the area 17 which is also known as the striate cortex. The fibres of the optic tract coming from the eyes terminate here and give it the striate appearance to the naked eye. Area 17 is in the medial portion of the occipital cortex. It consists of simple cells which are sensitive to movement. These cells are also sensitive to specific location and orientation of lines. The cells fire when visual stimuli move. In addition some of these cells fire when the stimuli are in a specific location and orientation. Colour perception also occurs in this area. Area 18 is adjacent to 17 laterally and contains complex cells. Each complex cell receives input from several simple cells. The complex cells are sensitive to orientation. However they are not location specific. They fire across different locations if the orientation is maintained. Complex cells are predominantly present in area 18. Some of these cells receive converging input from both eyes, the remainder receive input only from one eye. The complex cells are probably involved in the earliest stages of actual form perception. Area 19 is adjacent to the area 18 laterally. It contains predominantly hyper complex cells which are sensitive to movement, position and orientation. They process angles, corners, and movements and analyze discontinuity. These cells process geometric forms and it is here that visual closure is present. Hyper complex cells together with neurons in the temporal lobe initiate the closure essential to perceive incomplete figures. The fovea is most densely represented in the primary visual cortex or the striate cortex. This area also receives input from non visual areas of the brain

such as the brain stem nuclei, the pontine and mesencephalic reticular formation, the lateral amygdala and the lateral hypothalamus. These connections enable the processing of visual stimuli to be influenced by level of wakefulness and by emotional and motivational influences. The visual cortex is connected to the frontal regions. The association areas of the occipital cortex i.e., areas 18 and 19 are connected to the inferior temporal lobe and to the parietal lobe. These connections take the processing of visual information beyond the occipital cortex. Visual "stimuli become positioned in space and personally meaningful through these connections.

Occipital Lobe Syndromes

Lesion in the occipital cortex is associated with various disorders of processing visual information. Large and bilateral lesions in the medial calcarine cortex or area 17 lead to cortical blindness. The patient is blind though the eye and retina are intact. As this area receives maximum input from the fovea patterned vision is lost. The patient is able to discriminate levels of brightness and can make out light from dark. Peripheral vision mediated at the thalamic geniculate level would be present. Consequently though the patient is unable to see they do not bump into large objects. This phenomenon is known as blind sight. Probably because of this the patient with cortical blindness denies the blindness. If confronted with their blindness they invent reasons and excuses for their disability. This is known as Anton syndrome. If the lesion is partial, the patient might have hemianopia wherein loss of vision is present in only half of the visual field. Smaller lesions in the occipital lobe lead to hallucinations. Lesions in the area 17 result in hallucinations of moving lights, flashes, sparks and tongues of flame and colours. Objects become exceedingly large which is known as macropsia or exceedingly small which is known as micropsia. Objects also may be elongated or blurred in their outline. Colors might run and objects might lose colour. Lesions in the visual association areas i.e., areas 18 and 19 can produce complex visual hallucinations. These are images of men and animals. Objects and geometrical figures are seen. Micropsia and macropsia can also occur. The objects move towards the patient or recede from the patient. Complex hallucinations are fully formed and are quite real. The patient may not believe that these are hallucinations and might react to them as if they are actually present. Agnosias are the other major disorders occurring in occipital lesions. Visual objects agnosia or the inability to recognise familiar objects through sight is associated with medial occipital lesions, the patient is able to recognize the object through another sensory modality such as touch. Lesions of the left occipital lobe or disconnection of the occipital lobe from the left angular gyrus results in this agnosia. Sometimes, the patient is able to recognise the objects when the object is placed in a familiar context. The patient may be able to draw, paint or trace the object without recognizing it. The object becomes stripped of its meaning. Optic ataxia is present when the object changes its appearance or disappears while the patient is looking at it. Inability to recognise colours or colour agnosia is another condition associated with inferior bilateral occipital lesions. The patient is unable to name, match and identify colour. *Prosopagnosia* or the inability to recognise familiar face by sight is associated with right occipital lesions. The patient recognizes a face as a face but is unable to place as to whom it belongs. He or she may also recognize the voice without recognizing the face. The lesions are in

the right occipital and temporal regions. *Simultagnosia*, is an inability to perceive the totality of a figure or a scene. The patient is unable to see the totality of the scene and can describe only parts of it. It is associated with difficulties in visual scanning. The ability to scan and visually explore the environment is drastically reduced. It is a break down to perform visual serial step by step analysis. Visual attention is largely limited to the central visual field. The lesions are in the left hemisphere, or in the frontal eye fields. Bilateral superior occipital lesions can also cause this dysfunction. In some cases, the patients are unable to maintain fixation and focus on the parts of the object. This disorder is known as *Balint's syndrome*. It is a strange combination of three symptoms. Oculomotor apraxia: the inability to intentionally move your eyes towards an object. Optic ataxia, the inability to accurately reach for something you're looking at and Visual simultagnosia: the inability to take in the entirety of a picture. Instead, a person sees only parts of the whole as described in the preceding portion. For example, when shown a picture of a house, someone with simultagnosia could only see a window, a door, a wall, and so on, but not the entire house.

CONCLUSION

The current health paradigm recognizes the holistic approach to management. Neurological disorders often have issues which are associated with psychological impairments in the domains of attention, sensory-visual processes, higher brain and execution functioning like planning, decision making, problem solving etc. Clinical neuropsychology attempts to understand through neuropsychological evaluation and use cognitive retraining strategies to work and help improve these functions to improve the functioning and activities of daily living and quality of life of these patients. Besides, neurologists, neurosurgeons, psychiatrists, clinical psychologists and clinical neuropsychologists need to be a part of the treating team in the unit of neurology and neurosurgery for the holistic care of the patient. This paper is expected to highlight the importance of this in health care units in India and globally.

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Review on Theorizing Yoga and Dance/Movement Therapy as a Mindfulness Skill

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ABSTRACT

The aim associated with this is to theorizing to the developing example of therapists educated in both of the dance/movement therapy (DMT) and yoga and also to give information regarding the combination of DMT and yoga and practitioners' perceptions of how this might influence their routines mindfulness. Yoga, dance movement therapy, and mindfulness intention to accomplish the same aim of quieting the mind and requiring participants seek inside. Within this article, yoga principles are described because of their possibilities aspect in mindfulness skill progress as well as DMT. A consideration of the literature presents a description of yoga, DMT and additionally the theory of mindfulness, which includes relieves negative performing and boost of mental well-being, actual physical well-being, and behavior maintenance. The procedure during which yoga is theorized to operate as a mindfulness skill discussed alongside future guidelines for theoretical development. Because of both DMT and yoga really are mind-body methods that show positive psychotherapeutic usefulness patients undergoing treatment with them concurrently, this might be the inspiration for so many DMTs to be given learning yoga as well by using mindfulness techniques. The particular sections the perfect two modalities complement one another are, briefly, as shown below: both address the undeniable fact that emotions are handled in practice; they actually focus on the subject of understanding the body/body awareness, observation techniques, and more than that anatomy; DMT discusses to the concern about verbalizing the psychological process; and yoga offers a pattern of self-care regarding the therapist along with a method to take more people into the movement practical experience and produce to the mindfulness as powerful tools.

Keywords: *Yoga, Dance /Movement Therapy, Mindfulness*

The various different incarnations of psychoanalysis and psychotherapy represent effective in minimizing suffering, especially if the body and its resources are part of the treatment [1]. Mindfulness is currently a necessary feature of many fields of life from school, home, work, and play. And in addition, the latest progressions in neuroscience and brain plasticity have brought

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revolutionary operate in the use of mindfulness in the relief for anxiety, depression, emotional dysregulation, anger, stress along with other mental well-being cases [2]. Mindfulness within its modern non-religious technique that typically has been well known as “the awareness that is apparent through paying attention on purpose, in the present moment, and non-judgmentally to the relating of experience”[3]. Using guided meditation just like a procedure of creating comfort within the body assisted in reaching the goal of enhancing one’s awareness of emotions, thoughts and sensations by using of body-based methods [4]. It should be noted that great body of studies exists on yoga and its healing properties, it has only recently benefitted from empirically based studies that highlight clinical research outcomes involving the effects of yoga on mental well-being client populations. Such studies include Khumar [5].Hatha yogis, we felt, would have taken advantage of dropping into stillness and harmony for longer stretches of time and paying attention to the developing and passing away from moment to moment of mind/body skills in one sitting pose [6]. An essential perception of DMT is that emotions manifest in the sensations and energies of the body and are of equal significance to the inception of and awareness of one’s cognitive processes [7].Therefore, a typical treatment goal in DMT is to increase a client’s body awareness with the purpose of increasing emotional self-awareness [8]. Improving a mind-body interconnection presents a full awareness of and communication with one’s self through increased consciousness of needs in treatment to increase insight, prevent relapse, and promote general health through improved self-regulation [9]. Though yoga, DMT, and mindfulness share similar goals, little research exists connecting body based therapeutic techniques, that include DMT, and mindfulness cognitive techniques. Just one thesis has been written evaluating a yoga and DMT program, based on mindfulness, with persons managing symptoms of chronic mental illness [10].

Reflecting the lack of overlap in the available literature, this literature review has been divided into five sections.

The first goal is to define and characterize yoga, by primarily drawing upon yogic texts and the developing scholarship on the topic. Many readers may find the concept of yoga unfamiliar or resist participation due to Western misconceptions surrounding the now popularized physical practice of yoga. The second goal is to place mindfulness in the context of therapeutic skills training for mental health professionals and to expose a process through which yoga is theorized as a mindfulness skill. The third define and characterize dance /movement therapy, The fourth goal is to place mindfulness in the context of therapeutic skills training for mental health professionals and to expose a process through which DMT is theorized as a mindfulness skill. The paper concludes with the fifth goal of proposing future directions in theoretical development and an operational definition of yoga and DMT as mindfulness skill.

ORIGINS OF YOGA

“YOGA” definitely is an ancient Sanskrit word which, in only two syllables, involves the whole body of spiritual experiences and experiments of tens of thousands of Knew Masters [11].Yoga

is moreover closely related to the spiritual opinions and principles of the other Indian religions [12]. The word “Yoga” is mostly identified as “union”. It implies that the individual is unified with the Universe, the individuality with the Universality. This means “to join together”. Actually “One might more efficiently say Yoga is “reunion”. The Upanishad mentions, “That which was one became the many.” The knowledge of Yoga increases the “return of the many to the One”[11]. Yoga’s extended wealthy background can be divided up into four major durations of innovation, practice, and development. The beginning of Yoga was exposed through Indus-Sarasvati civilization in Northern India far over 5,000 in years past. The Upanishads achieved the idea of tradition sacrifice from the Vedas and internalized it, guiding the sacrifice of the ego through self-knowledge, act (karma yoga) and wisdom (jnana yoga) [13]. One of the original written content having to do with Yoga was compiled in India by a scholar named Patanjali, who set down the most widespread Yoga approach and practices of his time in a book he titled Yoga Sutras (“Yoga Aphorisms”) as soon as the 1st or 2nd century B.C. or maybe as late as the 5th century A.D. The procedure which he wrote about is coined “Ashtanga Yoga,” or the eight limbs of Yoga, and that is what is basically named Classical Yoga [14]. A few centuries after Patanjali, yoga gurus created a structure of practices created to rejuvenating the entire body and expand life span. This exploration of these physical-spiritual connections and body-centered practices concluded in the creation of all that we usually consider that of yoga in the western world: Hatha Yoga [15]. While the philosophy continues fairly consistent between different disciplines the physical feature of yoga is supplied in a few types.

Table 1: Distinguishing features of various forms of yoga.

Types of yoga	Personality or concept
Ashtanga	a strenuous series of poses sometimes referred to as power yoga.
Hatha	Postures are held for minutes, this is believed to really affect the body, as each posture is designed to gain health benefits. The longer you hold the pose, the more effective it is.
Vinyasa/Anusara	A gentle type of yoga, well suited for those just starting out, or for those who’d like to go at a slower pace. Slow free-flowing movements between poses.
Kundalini	This school of thought believes that nerve centers in the body can get clogged up or inactive and this leads to poor health. Kundalini’s repetitive posture flows (kriyas) unlock these blocks and leave you feeling wonderfully energized yet peaceful.
Bikram	Yoga practiced in a high temperature room.
Iyengar Yoga	(Prop yoga) created by a yoga master named Iyengar in India, this type of yoga is very therapeutic. You are placed into positions with various props (blocks, straps, chairs).

THE PRACTICE OF YOGA

Although there are numerous varieties of yoga practices, yoga typically combines stretching exercises and different postures with deep breathing and meditation. Yoga is created to stretch and shape the muscles and in addition to keeping the spinal column and joints flexible[16]. Yoga is generally practiced in unattached clothing and unfilled feet on a mat. Staying focused on each single movement on the deep abdominal breathing that is connected with each movement and typically the postures are kept for 4 to 5 breaths regarding the different coaching kinds of yoga which get popular today including Hatha, Ashtanga, Anasara, Iyengar and Bikram[17]. the practice of yoga is most often accompanied with the most extensively subscribed yoga discipline, Hatha Yoga[18]. Regarded classical yoga, Hatha is a yoga technique that goes back to ancient India however it has developed from its original traditions and now produces many postures (yoga poses) incorporated with deep breathing. Hatha Yoga is extremely regarded in the yoga community: according to yogis, Hatha-yoga creates a state of well-being and stillness of the mind[19].

YOGA IN CLINICAL RESEARCH

There's been a number of studies directly into advantages and benefits of Indian-based yoga in healthy populations and medical populations. Early texts described yoga's physical and psychological health benefits [20]. Since 2005, interest has continued to grow to invalidate the health rewards of yoga through clinical research. It is outside limits purview of this paper to completely investigate the research literature on this subject; however, several comprehensive reviews of clinical research exist [5]. One particular review realized that yoga provided the improvement in areas such as anxiety, depression, sleep worries, low back ache, headaches, hypertension, and stress. Furthermore, the physiological results of yoga such as decreased heart beating rate and blood pressure and the physical effects including weight reduction and increased muscle strength are reviewed [17]. Other reviews such as Kelly B. Smith_ and Caroline F. Pukall(2008) An evidence-based review article of Yoga as a complementary therapy for participants by having cancer, [21] Raub s (2002) classic literature review of Hatha Yoga[22], review all offer considerable understanding of other recent studies exploring the capability of yoga.

CLINICAL APPLICATION OF MINDFULNESS

Utilization of mindfulness meditation as a kind of behavioral therapy to treat medical problems set out with the work of Jon Kabat-Zinn, which actually searched the application of mindfulness meditation in curing clientele along with chronic pain (Kabat- Zinn, 1982), now well known popularly as Mindfulness-Based Stress Reduction. While in the time of establishment of MBSR, several other procedures have often been developed using mindfulness-related principles and routines, including [23]. Mindfulness has its origins in centuries-old traditions, yet is now served in standardized mindfulness training methodologies (ST-Mindfulness)1” Inclusive of mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT)[24][25]. Moreover, one outstanding question is connected to which specific ingredients of this multifaceted intervention are promoting the observed benefits[26]. Most ST-Mindfulness practices need some certain degree of endurance in the capability to remain stationary for an

extended period, sometimes nearly 45 min. This can be difficult for people who find it difficult to remain seated and focused. Many of the groups who may therefore take pleasure in training based on mindful movement include: (i) those for whom the composition and quality of mental experience is chaotic, disorganized, and distressing (e.g., visual or auditory hallucinations, paranoid delusions, racing thoughts and suicidal ideation, depersonalization); (ii) those whose illness could have compromised their attention capabilities; (iii) those whose neurological or developmental disabilities create the metacognitive aspects of the workout challenging; (iv) those for whom abnormalities (typically over-activity) in the motor system from section of the pathology of the disorder (for example ADHD, Tics, Tourette etc.); and (v) any others who find it difficult to sit still for a relatively long period of time[26]

Table2: types of mindfulness and clinical application of each technique

Mindfulness-Based Stress Reduction (MBSR)	Chronic pain and stress-related disorders (Kabat-Zinn et al., 1992)[27] .
Mindfulness-Based Cognitive Therapy (MBCT)	A treatment for chronic depression (Kabat-Zinn et al., 1992)[28].
Dialectical Behavior Therapy	Developed by Martha Linehan for use with people with borderline personality disorder[29].
Acceptance and Commitment Therapy	Developed by Steven Hayes, Kelly Wilson, and Kirk Strosahl to increase psychological flexibility[30].
Mindfulness-Based Relapse Prevention	Developed by Alan Marlatt individuals in addictive behavior recovery for substance-abuse relapse prevention[31].
Mindfulness-Based Eating Awareness Training(MB-EAT)	Developed by Jean Kristeller for binge-eating disorders[32].
Mindfulness-Based Childbirth and Parenting(MBCP)	Developed by Larissa Duncan for pregnant women to promote family health and well-being through the practice of mindfulness during pregnancy, childbirth, and early parenting[33]

Clinical applications including MBSR and MBCT have standardized approaches, that is, the techniques could have been described completely in manuals and are relatively invariant wherever, whenever, and by whoever are taught[34].Employ formal and informal practice in mindfulness meditation, education, discussions, and intensive home practice. Mindfulness meditation practice incorporates mindful focus to body sensations, mindful breathing, sitting meditations, Hatha yoga, and daily routines. Informal mindfulness practices are applied to any activity, like walking, cooking, and eating [28].

THEORIZING YOGA AS A MINDFULNESS SKILL

Yoga can be one of the six orthodox Indian philosophies, providing the practical methodological pathway toward attainment of “self-realization”[35].Which is certainly conceptualized as housed

in a state of universal consciousness when experiencing the higher “Self” (Feuerstein, 1998) [36]. Yogic philosophy in like method describes a three-stage process where this quietness of the mind is achieved. In the primary stage, a yoga practitioner, similarly to mindfulness, focuses their attention. In the second stage, a yoga practitioner turns focusing inwards on themselves. Mindfulness identifies this just like an awareness of what essentially occurs to us and is us at the successive moments of perception. The third stage in yoga is full participation [5]. A significant element of many mindfulness-based operations is mindful movement, such as the practice of yoga [37]. Hatha yoga specifically is based body-mind-breath harmony in a mindful approach, gradually working on physical and mental strength, flexibility, and balance. The focus is on the release of physical, mental, and emotional tension [38]. In keeping with this conceptualization, the current discussion proceeds with the understanding that yoga is an integration of three interrelated components, asanas (physical postures), pranayama (focused breathing), and dhyana (meditation) [38] [39].

The following section will describe each of these elements and the purported associated benefits.

Asana When practiced in combination with proper breathing and concentration, the postures of yoga are a vehicle for self-awareness [40]. As the knowledge of the body grows through regular practice, the practitioner learns to collaborate with the body to enjoy the fluidity of movement in entering, holding, and leaving the postures. The emphasis during asana practice is non-competitive and the individual is encouraged to become aware of internal sensations thoughtfully and mindfully. In this manner, individual growth is progressive over time to create a balanced integration of the mind, body, and spirit [28].

Pranayama the breath is an essential feature of yoga. the quality of the breath determines the quality of life. Although breathing is an automatic function, the ability to consciously control aspects of breathing can greatly affect the nervous system. During the practice of yoga, the breath is used to calm the nervous system, which in turn serves to calm the mind [41]. In general, during yoga practice, contractions of the body are associated with exhalation, and expansions of the body are facilitated by inhalations.

Dhyana As mentioned previously in this section, yoga is a journey toward self-awareness. Yoga is a meditative process with the ultimate goal of focusing the energies of the mind and body to create a sense of inner peace. During the practice, the yoga practitioner learns to observe internal and external events without judgment and/or evaluation it has been argued that the postures, breathing, and relaxation techniques practiced in yoga, work together toward the goal of meditation. In this context, meditation involves mindfulness, which involves the act of compassionate observing of the body, nervous system, and mind, and focused attention. These aspects work together to create a clear, one-pointed mind [42]. Yoga and mindfulness were combined within the Mindfulness-Based Stress-Reduction (MBSR) programme [6]. The aim is certainly not to perfect postures, but instead of finding out with every breath external and internal stimuli and experiences in the present moment with truthfulness, curiosity and without ever

having judgment. Movement by itself though has a promoting effect, causing increased awareness and consciousness. Mindful involvement in yogic practice improves one's ability to make note of stimuli, notice bodily sensations and release emotional tension. Basically, mindful yoga is not only physical activity, rather a personal practice which will provide development of concentration to the present moment, therewith deepening self-awareness [43][44].

A key training element is repeatedly progressing to physical information from the body. All of this is done over a number of practices, that can be none moving (e.g., supine body scan) or moving (e.g., slow mindful walking, stretching, and yoga). The mindful movement practices would have a certain capability evidenced due to discovering that mindful yoga, although completed for the quickest time period in comparison with other practices, had the foremost significant effect on modifications in mindfulness, well-being, and medical symptoms [45]

DEFINITION AND PRINCIPLE OF DANCE/MOVEMENT

Therapy Dance/movement therapy is defined as, “the psychotherapeutic using of movement just like a process which furthers the emotional, cognitive, social and physical integration of the individual” (American Dance Therapy Association 2007). It is founded on the principal that the mind and body are intricately connected and also that any, “change in one of these domains produces corollary change in the other” [46][47]. Schmais (1974) defined four basic characteristics of DMT. In summary they are as shown below: DMT is expressive of emotions; DMT is developmental; DMT is physically integrative; and DMT is inclusive, in other words, it may be utilized with anyone [10]. The exercises were designed to unify the actions of breathing, muscular fluctuation, and feeling. From each of these exercises she, “encouraged her patients to develop a personal sensitivity to their body processes by getting them do movement sequences that organically supported and facilitated the integration of the emotional and physical experiences of the self” [8]. Through body action, the DMT work to assist the patient creates a realistic body image and also to activate and integrate body parts during movement sessions. The DMT guides patients in becoming more aware of inner sensations in order to develop with additional control over his/her body movements. Another goal with regard to body action includes mobilizing energy within the body [10]. Dance/movement therapists also work with the concepts of grounding, connectivity in the body, breath support, and organization of the body. These elements are included in the twelve principles of the Bartenieff Fundamentals. The principles are defined as the initial truths which supply central support regarding the Bartenieff Fundamentals [48] [49]. The first principle is total body connectivity. This is basically the concept that the entire body is connected so that change in a single part changes the whole body as a whole. The second principle is breath support. Target the breath is important in movement and body studies. When movement is supported by breath, the movement can happen with more fluidity. Breath influences every aspect of the movement. The third principle is grounding. Whenever one is “grounded” it implies that one is stable in each of a mental and physical sense. Dance/movement therapists often promote grounding within the DMT session. They invite their patients for being aware of the connection their bodies have with the earth and to let their weight

sink into the provide support for the earth is offering. By becoming more connected with the earth, “movement can then journey through the body utilizing that sense of grounded stability as a base by which to move”[50].The intent is another important principle that defines elements with which dance/movement therapists’ work. The process the patient moves is based on their inner intent in four areas: Body, Effort, Shape, and Space. A body-level intent, “might include clarifying wherein the body movement initiates and the way the movement sequences through the body parts to complete the phrase”.Effort intent, “might include being in or revealing an inner mood, a feeling, or making a dynamic statement in movement”[51]. The intent in Shape could include forming the body to facilitate relationships with others or the environment, or to form a particular shape with the body. The last area in which intent may be shown is space intent in space might be to go in a particular direction or in a particular form. Spatial desire “organizes and clarifies body connections by establishing a clear pathway/goal for the movement”[52].

CLINICAL APPLICATION OF DANCE/MOVEMENT THERAPY

In order to figure out the clients as well as to consider the processes and benefits of DMT work, DMT is an investigation informed practice. As well – research is also attempted to further the identification of the profession through the distribution of the research findings in conferences, publications and also on daily discussions with general society, clients as well as doctors and other members of the multi-disciplinary team in medical, social care or educational setting. Research in DMT may include the variety of topics, and methodologies include qualitative and quantitative as well as mixed approaches.

DMT in psychiatry

Emotional eating

Research led by Bonnie Meekums and conducted in Latvia 8 explored the impact of DMT in obese women with emotional eating who were trying to reduce weight. Revelation the DMT group indicated statistically lowered psychological distress, decreased body image distress, and raised self-esteem in comparison with controls. Emotional eating cut down in DMT and training groups [53]

Depression

A study conducted in Finland investigates using the body and movement-based therapy intervention among the treatment for depression. Central to this particular study is using a short-term group type of DMT intervention that had a positive effect on patients with depression [54].A study¹² assessed the profiles of psychological well-being and changes in neurohormones of adolescents with mild depression after approximately 3 months of DMT. Plasma serotonin quantity increased and dopamine amount decreased in the DMT group. These results suggest that DMT may support the sympathetic nervous system. To summarize, DMT could be effective in beneficially modulating concentrations of serotonin and dopamine, furthermore in improving psychological distress in youth with mild depression [24].

Conduct disorder and mood problems

A retrospective study conducted in the United States, noticed that DMT impacts moods of adolescents despite gender of diagnosis [25].

Stress management

A randomized controlled trial¹⁵ compared the result of a DMT group intervention on stress management improvement and stress-relief with a wait-listed control group (WG). Results indicate that DMT group treatment is more effective to improve stress management and reduce psychological distress than no treatment, and DMT effects last over time[26].Lidovitch researched and reported on the effectiveness of dance/movement therapy and other mind/body methods in reducing symptoms of anxiety. She examines the literature relevant to this topic and limits the study to include the body/mind approaches of imagery, relaxation, breathing techniques, and DMT. According to her summary, the literature she found supports the notion that DMT and mind/body methods manage anxiety symptoms effectively [49].

CONCEPTUALIZING DANCE/MOVEMENT THERAPY AS MINDFULNESS SKILL

The building of this research emerged out from the requirement to identify a way to psychologically and somatically describe the deeply personal nature of meditation, as well as determine if participating in guided meditation increased body awareness and ease connecting with the body. Although meditation is traditionally viewed as rooted primarily in cognition, recently, some practitioners have used it to increase focus on a body level as well. Gunaratana (2011) stated: The body alone are able to do nothing for itself; it is like a log not able to move or do anything by itself except become the subject of impermanence, decay, and death. The mind is able to do nothing without the support of the body. Once we mindfully watch both mind and body, we can easily realize how many wonderful things they do together [49].Mindfulness-Based Stress Reduction (MBSR), produced by Jon Kabat -Zinn, has several methods for utilizing mindfulness to reduce long-term stress, including the body scan, a way for focusing meditative attention on specific fields of the body. This treatment program also uses Hatha yoga, sitting meditation and coping skill development with supporting the mindfulness approach [55]. Mindfulness-Based Relapse Prevention (MBRP) can be another program that stresses the cognitive processes explored using mindfulness meditation, the secular edition of Buddhist-based Vipassana meditation, to control craving states and related stress during addiction treatment. Witkiewitz et al. (2005) stated “Mindfulness meditation may disrupt this strategy [the system of the craving response relative to the environment] by supplying heightened awareness and acceptance of the original craving response; without judging, analyzing or reacting” (p. 219). With meditation and the understanding of mindfulness becoming increasingly prevalent in mental well-being treatment, including addiction treatment models, dance/movement practitioners would profit from acknowledging the similarities among the DMT and mindfulness meditation. As discussed above earlier, present moment awareness is a vital to mindfulness. DMT being a therapeutic modality also lives in the present. Movement happens in the now and focusing focus to present-time produces mindfulness. Fundamentally, DMT is a mindful

practice. The impact of preventing relapse may, partly, lie in the skill of present moment awareness which helps to detect maladaptive behaviors as they're occurring or about to occur therefore decreasing the likelihood they are going to be repeated going forward. If behaviors are recognized, they might be changed. Without this awareness, the previous continues to intrude itself upon the present all through the recovery process. As we said in Kabat-Zinn (2005), "Mindfulness is more than a meditation practice which could have profound medical and psychological benefits; it is also a way of life that reveals the gentle and loving wholeness that lies at the heart of our being, even within times of great pain and suffering" [56]. The concentration of DMT would be to illuminate the strengths of each one part of an individual—mind, body, and spirit—to form a holistic method of healing. It is the opinion of this researcher that these kinds of two practices, mindfulness meditation, and DMT, complement each other in purpose and practice. Thus, they can include safe and nurturing environment from which those in recovery from addiction can start to reacquaint themselves with the most important relationship in their lives---the relationship with self [9].

CONCLUSION

The intention of this research would be to look into the developing number of therapists educated in each of dance/movement therapy (DMT) and yoga and also to give information regarding the combination of DMT and yoga and how this might influence their mindfulness practices. The literature review presented a summary of mind-body therapies plus the passion developing in this matter and also qualifications information on yoga and DMT, an overview of yoga applied in clinical situations along with its effects when utilized such as a mental health therapy, and more than that an overview of DMT principles and techniques. Yoga and dance movement therapy can be quite complementary activities for clinician's presently training mindfulness. Theorizing applies or being mindfulness skill might turn out to be more engrossing activities for patient populations whom practice the breathing and paying attention to specified by mindfulness but might typically not enjoy involved within the classic mindfulness techniques or courses. Definitely, the get started on of yoga or DMT about alike clinician mindfulness exercising and training could possibly be an alternative choice to the ways currently popularized, to know the movement united with breathing in yoga would be able to provide participants a feeling of really being dynamic, effortlessly drawing their mind free from their thoughts and feelings. This conception of quieting the mind by using body movement is in accordance with how yoga principles have been pointed out previously within this paper. Clinicians might take benefit from this modern mindfulness ability to obtain the advantage of mindfulness more useful to their patients. Moreover, some issues of setting out mindful movement for clinicians are present for guide practice; various yoga routines are available, the study is needed to completely conceptualize the usage of yoga and DMT in future guidelines of mindfulness apply and certainly revealing a yoga routine that is undoubtedly sufficient for lead practice.

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Application of Psychodrama on Conflict Management and Assertive Training

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ABSTRACT

This qualitative research is intended to bring a observational and phenomenological analysis of the applicability of psychodrama in the management of conflict, manifestation of assertive behaviour in alcohol dependent patients, also to observe and elucidate the process of a certain skill that is being learned or a certain conflict being managed and to see what other therapeutic progress psychodrama can bring in participants. This study was conducted in RINPAS, Ranchi and consisted of 5 samples; each went through 16-17 sessions of treatment of various psychodramatic techniques. Data analysis in the current study involves integration of Narrative participant observer report and Phenomenological approach. Post therapy and follow up report indicated improvement.

Keywords: *Psychodrama, Alcohol dependence, Conflict Management, Assertive Training*

The conceptualization of Moreno's Psychodrama is defined by Kipper, (1988) as "a method that uses dramatizations of personal experiences through role-playing enactments under a variety of simulated conditions as a means for activating psychological processes" which "provides a prodigious force for therapeutic change and healing. (Wilkins, 1994). The aim of psychodrama is to help a person be more constructively spontaneous, be happier and have the strength to design life as he wants it to be. The objectives of insight and cathartic release play their part in unblocking the person's, perception and ability to deal with change (Costa, 1995).

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Application of Psychodrama on Conflict Management and Assertive Training

Psychodrama then, is primarily an action method of psychotherapy and personal growth which relies upon the innate spontaneity and creativity of human beings for its effectiveness to enact the scenes of his life with addition of ways to find substitute of adaptable ways to problematic and deficit past behaviours (Samantaray, 2014). Psychodrama therapy promotes an environment in which addicted clients can openly express emotions, explore a drug-free future, develop communication skills and make personal connections. Clients are urged not to rationalize or deny addiction; rather, through the dramatic process, they are challenged to face their issues directly and truthfully (Samantaray, 2014).

Research and therapeutic works has indicated the effectiveness of psychodramatic procedures and other form of action oriented therapies with individuals with substance dependence in incorporating of various social skills and management of conflicts.

Dayton (2000) discussed efficacy of psychodrama who were dealing with addiction and trauma. Marayam (2012) examined the effectiveness of dramatic procedures in improving social skills like refusal training. Greenwald et al (1980) found effectiveness of action oriented therapy for alcohol addicted individuals in the development of adaptive refusal and social skills. Loughlin, (1992) his study aimed to investigate the perceived effectiveness of dramatic procedures in the treatment of women with alcohol problems mostly by resolving of conflicts. Dushman, (1991) found psychodrama to be effective in as a means of catharsis which can be too used for social skill training necessary for relapse prevention and abstinence.

AIM

This qualitative study is intended to bring a observational and phenomenological analysis of the applicability of psychodrama in the management of conflict, manifestation of assertive behavior in alcohol dependent patients, also to observe and elucidate the process of a certain skill that is being learned or a certain conflict being managed and to see what other therapeutic progress psychodrama can bring in participants.

Study Design

The design conceded for present study is the variant of before and after without control design with multiple base design across subjects. In this design, each participant serves his own control. In order for each participant to serve his own control, stable baseline for each participant is established before the treatment begins. Stable baseline is established with the purpose to measure the effects of treatment after the treatment begins. Various possible effects of extraneous variables like education, socio economic status, motivation level, gender, background and others were tried to minimize during inclusion and exclusion criteria. In present study, baseline for conflict level and assertive level for each participant was taken. After baseline for each participant was established, treatment was given to each participant both individually and in group. The duration of the treatment was 3 months.

Procedure and Tools

This goal of this study is intended not only to bring an observational and phenomenological analysis of the applicability of psychodrama in the management of conflict and manifestation of assertive behaviour in alcohol dependent patients but also to observe how a certain skill is being learned or a certain conflict being managed. This study was conducted in the RINPAS, Kanke, Ranchi. Initially, 36 male alcohol dependent patients were interviewed keeping the inclusion and exclusion criteria in mind. Out of them 17 were selected on the basis of purposive sampling. 17 of them were thoroughly assessed regarding the substance exposure from the first time to current time.

Using the qualitative technique of in-depth interviewing, initially all of the participants were enquired about their substance history, personal and family history, conflicts, needs, attitudes, conflicts other dynamics. On basis of this finally 8 samples from them were thought to be best representative were selected for the final research study. Then to establish the baseline data and rapport these 8 participants were taken more in-depth and thorough interviewing about their substance, family and personal history and related dynamics. Then assessment by Sack's Sentence Completion Test questionnaire and Assertive Checklist was administered to supplement the base line data. After, the interviewing of participants their family members too were interviewed regarding their problematic behaviour to have a better understanding of the patients and being aware of the other's perspective. Interview with the family members and re interview with him also served as "verification" interview. The interview was conducted in a private setting, lasted for approximately 1-1.5 hours each time, and some of them were tape recorded and later transcribed. The location of the interview was determined according to the convenience of the researcher. Some of the interview occurred either over the phone and face-to-face and some both. As part of the observational and phenomenological approach to understanding the meaningfulness of conflicts, nonverbal cues and language were also taken into account in the data analysis. But, three out of eight participants were discharged after 4 sessions of therapeutic work and other 5 cases, all of them were inpatients, were carried out the complete therapeutic sessions for 3 months. Before the treatment began, the 5 participants were being introduced to each other regarding their socio demographic, substance and limited personal details with prior consent from each participant. Participant confidentiality and security was ensured. Any identifying information was eliminated from the interview transcripts and audio tapes, and the participants were identified with pseudonyms so as to protect their privacy. Audio tapes were kept in a secure place accessible only to the primary researcher. The notes, tapes, transcriptions, and any other written data materials were destroyed after completion of the dissertation.

Data Analysis

Data analysis in the current study involves integration of narrative meticulous account by participant observer and phenomenological descriptions of both observer as director, the researcher here, and of the participants. However, phenomenology not only involves research

participant experiences but also what the researcher description of his or her own experience of the phenomenon (Creswell, 1998).

Bracketing is done to reduce the researcher's bias to the minimum that is humanly possible.

A conscious effort in bracketing assumptions regarding the nature of conflicts within the alcoholic addicted individuals and there management was done.

For assuring the standards of quality and verification, the steps measures involved were; a) member-checking to determine the accuracy of the qualitative findings, b) a second, shorter interview was conducted with participants in which they had the opportunity to verify or correct any misinterpretations in the transcript, c) bracketing is done to clarifying the bias the researcher brings to the study, d) the findings of the study were presented to the External Reviewer, who were my colleagues like Mr Jai Shankar Patel , they were extremely familiar with the area of research.

Overview of sessions

This section includes the therapeutic aim before the psychodramatic treatment, total sessions conducted on each cases and what psychodramatic techniques were used for each problem.

Case 1. On the basis of clinical interview and assessment my therapeutic goals are to work on his severe level of conflict regarding the “attitude towards father” and on poor assertive level. Total 15 sessions were conducted. While working on conflicts the psychodramatic techniques used were Empty Chair, Catharsis, Role Reversal, Simple Enactment, Meta Role and double. For development of assertive behavior the psychodramatic techniques used were Role Play, Meta role, Skill Training and Mirror. After one month follow up session was done.

Case 2. Treatment was aimed on resolution of conflict regarding guilt feelings and development of assertive behavior. Total 16 sessions were conducted. Therapeutic work on guilt feelings involved psychodramatic techniques like Another Path Technique, Feedback Warm up Technique, Catharsis with Empty Chair, Surplus reality, Role Reversal, Double, Voice over, Mirror Technique, Future Projection Technique and Act completion Technique. For development of assertive behavior the psychodramatic techniques used were Role Playing, Role Training, Meta Role, Ego Building Technique, Mirror Technique and Replay technique. After one month follow up session was done.

Case 3. On the basis of assessment my therapeutic goals are to work on conflict resolution regarding his self concept, wife and enhancing assertive behavior. Total 16 sessions were conducted. While working on conflicts regarding self concept the psychodramatic techniques used were Surplus Reality technique, Idealization technique, Multiple Ego technique and Mirror technique. For resolution of conflict regarding his wife the techniques used were Empty Chair, Role reversal, Meta Role, Act Fulfillment technique and Future Projection technique. For development of assertive behavior the psychodramatic techniques used were Role Playing, Role

Application of Psychodrama on Conflict Management and Assertive Training

Training, Meta Role, Ego Building Technique, Mirror Technique and Replay technique. After one month follow up session was done.

Case 4. On the basis of clinical interview and assessment my therapeutic goals are to work on conflict resolution regarding his interpersonal relationship and conflict with brother with special enhancement on its maintaining factors; thus spotlight like on anger management, developing effective communication skills, enhancing assertive behavior and ability to enhance social networks through psychodrama. Total 16 sessions were conducted. Therapeutic work on conflicts and skill development involved psychodramatic techniques like Monodrama, Role reversal, Meta Role, Audience Analyst technique, Mirror technique, Coaching, Replay techniques, Situation test, Surplus Reality Technique and Future Projection technique. The kind of areas of assertive behavior that are targeted are asking and requesting help from brother and denying his two closest friend for going parties and alcohol. For this psychodramatic techniques used were Empty Chair, Wish fulfillment, Role playing, Replay technique and application of Meta role. After one month follow up session was done.

Case 5. Based on from clinical interview, SSCT and Assertive checklist, my therapeutic goals are to work on his conflicts with family, guilt feelings and lack of assertiveness related to denying for sexual intimacy with his extra marital partner. Total 17 sessions were conducted. Therapeutic work on conflicts involved psychodramatic techniques of Another path Technique, Role play, Surplus Reality, Role reversal, Replay with modification technique, Wish fulfillment technique, Substitute role and Double technique. For improving assertiveness behavior in refusing to unnecessary extramarital demands to his partner the psychodramatic techniques used were Simple enactment, Meta role application, Mirror technique, Coaching, Double and Replay with Modification techniques. After one month follow up session was done.

CONCLUSION

The main findings of the study were as follows:

- Psychodrama was found to be effective in dealing with the issues of managing of conflicts related to family, interpersonal relationship, sex and self concept. In present study, all 5 participants after the discharge made fortitude valiant efforts in encountering their respective conflicts with robust uprightness.
- Psychodrama was found to be effective in bringing an insight within addicted patients about their own role in certain conflicts.
- Psychodrama found to be effective measure for the context of dealing with guilt and practicing making amends.
- Psychodrama was effective in developing or practicing assertiveness skills in stimulated live situations.
- Through psychodrama catharsis of abreaction, integration and inclusion can be achieved. Psychodrama can be used to address a wide variety of issues including those in the past, present, and future, or those that involve the internal conflict or interpersonal realm. In providing an emotionally corrective experience, being able to receive, feel or understand

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something in a new way; Exploring and trying out an alternate approach to a problem;

- In confronting and dealing with intense emotions (anger, sadness) or to become aware of one's own feelings;
- Practicing drills or learning how to cope in difficult situations that could result in relapse.
- Developing empathy and understanding the other perspectives
- Becoming aware of the impact of one's behavior on others, its consequences for others;
- Psychodrama can serve as brief model in comparison to lengthy psychoanalytic sessions in dealing with intrapsychic conflicts. But no doubt that roots of psychodrama is influenced by it.
- The psychodramatic approach can be readily integrated with many other approaches to psychotherapy. In my study I have assimilated certain behaviour techniques in psychodramatic mould mostly in case of teaching of assertive skills with all my 5 participants.

LIMITATIONS AND FUTURE DIRECTIONS

There appears to be several limitations with the method itself. The number of participants is limited. Failure of case 3 and 4 in increasing abstinence for longer periods, speaks up the probability that the area of dramatic focus should have been myriad to include more focus on coping skills and motivation enhancement skills. Numbers of dramatic sessions revolving certain issues like communication training were less. As Moreno prophesied the humanitarian statement that each individual has power of creativity and spontaneity so if they were challenged it will manifest. And basing on this, he proposed the psychodramatic rationale. But in the present study, purposive sampling was done in order to include those participants who have desired attributes, so participants selected by random sampling would more give a better validation of Moreno's given humanitarian rationale of spontaneity and creativity. If psychodramatic approach would be integrated with other approaches of psychotherapy the outcome of treatment may be more enhanced. It can be integrated with psychoanalysis, object relations, behavior therapies, gestalt therapy, creative arts therapies, play therapy, body therapies, imagination therapies, hypnotherapy, Adlerian therapy, Jungian therapy, family therapy, group therapy, and miscellaneous therapies as per requirement. After the post treatment various follow up can be done for long periods to trace the impact of treatment in a more comprehensible and assured way, and also various intermittent and other emergent risk factors can be better dealt.

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Moral Treatment: Philippe Pinel

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ABSTRACT

Philippe Pinel a pioneer, a french psychiatrist, a physician, known as father of modern psychiatry, revolutions psychiatric care of patients with mental illness by introducing concept of moral treatment. Pinel rejected the then prevailing popular notion that mental illness was caused by demonic possession and stated that mental disorders could be caused by a variety of factors including psychological or social stress, congenital conditions, or physiological injury, psychological damage, or heredity. Philippe Pinel for the first time in history of psychiatric patients treated them humanly by unchaining patients known as madmen. This historic event was done for first time in Bicêtre Hospital in 1798 a Parisian insane asylum. In this article a brief history of life and work of pioneer Philippe Pinel is mentioned.

Keywords: *Philippe Pinel, the Bicêtre and Salpêtrière, Unchaining, Moral Treatment.*

Philippe Pinel was a French psychiatrist and physician who provided a more humane psychological approach to the custody and care of psychiatric patients, referred as moral treatment. Pinel was born in the rolling hills of Jonquières, France. He was the son and nephew of physicians. After receiving a degree from the faculty of medicine in Toulouse, he studied an additional four years at the Faculty of Medicine of Montpellier. He arrived in Paris in 1778. Pinel did much to establish psychiatry formally as a separate branch of medicine. He made notable contributions to the classification of mental disorders and has been described by some as "the father of modern psychiatry". Pinel was also one of the first clinician who believed that medical truth was derived from clinical experience. Pinel considered migrating to America. In 1784 he became editor of the not very prestigious medical journal the *Gazette de santé*, a four-page weekly. He was also known among natural scientists as a regular contributor to the *Journal de physique*. He studied mathematics, translated medical works into French, and undertook botanical expeditions.

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At about this time he began to develop an intense interest in the study of mental illness. The incentive was a personal one. A friend had developed a 'nervous melancholy' that had 'degenerated into mania' and resulted in suicide. What Pinel regarded as an unnecessary tragedy due to gross mismanagement seems to have haunted him. It led him to seek employment at one of the best-known private sanatoria for the treatment of insanity in Paris. He remained there for five years prior to the Revolution, gathering observations on insanity and beginning to formulate his views on its nature and treatment. Pinel was an Ideologue, a disciple of the abbé de Condillac. He was also a clinician who believed that medical truth was derived from clinical experience. Hippocrates was his model. During the 1780s, Pinel was invited to join the salon of Madame Helvétius. He was in sympathy with the French Revolution. After the revolution, friends he had met at Madame Helvétius' salon came to power. In August 1793 Pinel was appointed "physician of the infirmaries" at Bicêtre Hospital. At the time it housed about four thousand imprisoned men-criminals, petty offenders, syphilitics, pensioners and about two hundred mental patients. Pinel's patrons hoped that his appointment would lead to therapeutic initiatives. His experience at the private sanatoria made him a good candidate for the job.

CONTRIBUTIONS

Psychiatry: Pinel rejected the prevailing popular notion that mental illness was caused by demonic possession. He stated that mental disorders could be caused by a variety of factors including psychological or social stress, congenital conditions, or physiological injury, psychological damage, physical conditions and heredity. He observed and documented the subtleties and nuances of human experience and emotion. He identified predisposing psychosocial factors of mental ill such as an unhappy love affair, domestic grief, devotion to a cause carried to the point of fanaticism, religious fears, the events of the revolution, violent and unhappy passions, exalted ambitions of glory, financial reverses, religious ecstasy, and outbursts of patriotic fervor. He noted that a state of love could turn to fury and desperation, can cause mania or 'mental alienation'. He also spoke of avarice, pride, friendship, bigotry and vanity.

Moral treatment: Pinel proposed a new, nonviolent approach to the care of mental patients came to be called moral treatment, in the sense of social and psychological factors. He strongly argued for the humane treatment of mental patients, including a friendly interaction between doctor and patient. His treatment was marked by gentleness, understanding, and goodwill. He was opposed to violent methods - although he did not hesitate to employ the straitjacket or force-feeding when necessary. Pinel expressed warm feelings and respect for his patients: "I cannot but give enthusiastic witness to their moral qualities. Never, except in romances, have I seen spouses more worthy to be cherished, more tender fathers, passionate lovers, purer or more magnanimous patriots, than I have seen in hospitals for the insane".

Pinel visited each patient, often several times a day. He engaged them in lengthy conversations and took careful notes. He recommended close medical attendance during convalescence, and he emphasized the need of hygiene, physical exercise, and a program of purposeful productive work

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for mental patients. He further contributed to the development of psychiatry through his establishment of the practice of maintenance and preservation of detailed case histories for the purpose of treatment and research. Pinel also made the introduction of hospital treatment, doctor's rounds, medical procedures, unchained the insane. Pinel petitioned to the Revolutionary Committee for permission to remove the chains from some of the patients as an experiment, and to allow them to exercise in the open air. When these steps proved to be effective, he was able to change the conditions at the hospital and discontinue the customary methods of treatment, which included bloodletting, purging, and physical abuse. In 1798 Philippe Pinel cut chains from the limbs of patients called "madmen" at the Bicêtre Hospital, a Parisian insane asylum.

Psychotherapy: Pinel's practice of interacting individually with his patients in a humane and understanding manner represented the first known attempt at individual psychotherapy.

Medicine: Pinel was known chiefly for his contributions to internal medicine, especially his authoritative classification of diseases in the textbook *Nosographie philosophique* (1798), in which he divided diseases into five classes-fevers, phlegmasias, hemorrhages, neuroses, and diseases caused by organic lesions. Besides his work in hospitals, Pinel also treated patients privately as a consulting physician. Pinel's extensive contributions to medical research also include data on the development, prognosis, and frequency of occurrence of various illnesses, and experiments measuring the effectiveness of medicines. Pinel's work on clinical medicine, *Nosographie philosophique* (1789), was a standard textbook for 2 decades, and several 19th-century schools of thought on clinical medicine trace their origin to it.

Administration: In addition, Pinel concerned himself with the proper administration of psychiatric facilities, including the training of their personnel. Pinel created an inoculation clinic in his service at the Salpêtrière in 1799 and the first vaccination in Paris was given there in April 1800.

The Bicêtre and Salpêtrière

Soon after his appointment to Hôpital Bicêtre, Pinel became interested in the seventh ward where 200 mentally ill men were housed. He asked for a report on these inmates. A few days later, he received a table with comments from the "governor" Jean-Baptiste Pussin (1745-1811). In the 1770s Pussin had been successfully treated for scrofula at Bicêtre; and, following a familiar pattern, he was eventually recruited, along with his wife, Marguerite Jubline, on to the staff of the hospice. While at Bicêtre, Pinel did away with bleeding, purging, and blistering in favor of a therapy that involved close contact with and careful observation of patients. Pinel visited each patient, often several times a day, and took careful notes over two years. He engaged them in lengthy conversations. His objective was to assemble a detailed case history and a natural history of the patient's illness.

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In 1795, Pinel became chief physician of the Hospice de la Salpêtrière, a post that he retained for the rest of his life. The Salpêtrière was, at the time, like a large village, with seven thousand elderly indigent and ailing women, an entrenched bureaucracy, a teeming market and huge infirmaries. Pinel missed Pussin and in 1802 secured his transfer to the Salpêtrière. It has also been noted that a Catholic nursing order actually undertook most of the day to day care and understanding of the patients at Salpêtrière, and there were sometimes power struggles between Pinel and the nurses. Pinel created an inoculation clinic in his service at the Salpêtrière in 1799, and the first vaccination in Paris was given there in April 1800.

Publications

In 1794 Pinel made public his essay 'Memoir on Madness', recently called a fundamental text of modern psychiatry. In 1798 Pinel published an authoritative classification of diseases in his *Nosographie philosophique ou méthode de l'analyse appliquée à la médecine*. Pinel's classification of mental disorder simplified Cullen's 'neuroses' down to four basic types of mental disorder: melancholia, mania (insanity), dementia, and idiotism. Later editions added forms of 'partial insanity' where only that of feelings which seem to be affected rather than reasoning ability. In his book *Traité médico-philosophique sur l'aliénation mentale; ou la manie*, published in 1801, Pinel discusses his psychologically oriented approach. In 1802 Pinel published *La Médecine Clinique* which was based on his experiences at the Salpêtrière and in which he extended his previous book on classification and disease.

HONOURS AND AWARDS

In 1795 Pinel had also been appointed as a professor of medical pathology, a chair that he held for twenty years. He was briefly dismissed from this position in 1822, with ten other professors, suspected of political liberalism, but reinstated as an honorary professor shortly thereafter. Pinel was elected to the Académie des Sciences in 1804 and was a member of the Académie de Médecine from its founding in 1820. He died in Paris in 1826.

Clinical approach: Psychological understanding

The central and ubiquitous theme of Pinel's approach to etiology (causation) and treatment was "moral," meaning the emotional or the psychological not ethical. He observed and documented the subtleties and nuances of human experience and behavior, conceiving of people as social animals with imagination. Pinel noted, for example, that: "being held in esteem, having honor, dignity, wealth, fame, which though they may be factitious, always distressing and rarely fully satisfied, often give way to the overturning of reason". He spoke of avarice, pride, friendship, bigotry, the desire for reputation, for conquest, and vanity. He noted that a state of love could turn to fury and desperation, and that sudden severe reversals in life, such as "from the pleasure of success to an overwhelming idea of failure, from a dignified state-or the belief that one occupies one-to a state of disgrace and being forgotten" can cause mania or 'mental alienation'. He identified other predisposing psychosocial factors such as an unhappy love affair, domestic grief, devotion to a cause carried to the point of fanaticism, religious fears, the events of the

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revolution, violent and unhappy passions, exalted ambitions of glory, financial reverses, religious ecstasy, and outbursts of patriotic fervor.



Philippe Pinel (1745-1826)

DOB: April 1745

Place: France

Occupation: Psychiatrist, Physician

Died: 25 October 1826, Paris

Known As

"The father of modern psychiatry, pioneered in 'Moral treatment' - the humane treatment of the mentally ill"

CONCLUSIONS

Philippe Pinel stated that psychiatric illness are caused by various psychosocio and many other reasons other than demonic possession, hence patients should be treated humanly, by non violent ways, and not to chain psychiatric patients. Pinel's most important contribution may have been the observation and conviction that there could be sanity and rationality even in cases that seemed on the surface impossible to understand, and that this could appear for periods in response to surrounding events (and not just because of such things as the phase of the moon, a still common assumption and the origin of the term lunatic).

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Developing Programmed Learning Material for Teaching Science of CBSE Class IX

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Keywords: *Learning Material, Teaching Science, CBSE, Class IX*

We will begin by discussing the early history of programmed learning and showing how the interpretation of the term has evolved over the years. The origin of programmed learning had its roots in behavioural psychology- the new 'scientific' school of psychology that was pioneered by the American psychologist **B F Skinner** during the 1950's. Behavioural psychology was based on what is generally referred to as the stimulus response (S-R) model of behaviour. One important feature of the original stimulus-response model of learning was the concept of successive reinforcement. Another feature is that a desired S-R bond would be firmly established if the learner was supplied with immediate feedback in the form of the correct answer immediately after attempting a particular learning task such as answering a question. Another feature of Skinner's original theory was that each successive stimulus-response step should be small enough to ensure that the learner was nearly always correct in his or her response.

Principles of programmed learning:

Principles	Explanation
Active learner response	To what extent a learner can understand is judged by making him/her answer questions. The extent of a learner's understanding is ascertained from what is demonstrated in the responses.
Immediate feedback	Let a learner know whether his/her answer is correct or incorrect immediately. Give the learner the subsequent question after he/she knows whether his/her response is right or wrong.
Small steps	Set small steps in order to prevent a learner from stumbling as much as possible.
Self pacing	Let the learner decide the speed of learning so that he/she can learn at his/her own pace.
Learner verification	Whether the program is good or bad is judged not based on a specialist's opinion, but whether learning is actually established or not. To that end, get learners who have yet to learn the subject matter to try the program under development. Improve the material as necessary on the basis of trials made.

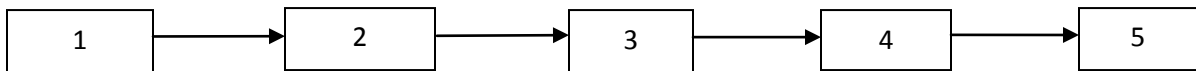
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*Responding Author

TYPES (discuss only two basic types):

Linear programmed learning the first application of Skinner's research to the classroom situation came in the form of the linear programmed learning systems that he developed in 1950's. In this type of programmed learning, the subject matter was broken down into a sequence of small steps (or frames) that followed logically upon one another. Each of the steps representing only a very small part of the concept or skill being taught. Immediate feedback on the correctness (or otherwise) of the response was designed to provide suitable reinforcement. It was virtually impossible to take a step without having successfully completed preceding ones. There was thus only one possible path which a student could take through the frames - hence the name linear programmed learning. Its structure can be depicted diagrammatically as:



Branching programmed learning

In early 1960's, a new form of programmed learning known as branching programmed learning was developed. It is based on a result of the work of Norman Crowder. This involved the use of several possible paths through the sequence of frames. These frames are called as remedial frames. The topic to be studied was taught in a number of alternative ways in such a branching programme, depending on the performance of the learner. This would avoid the inflexibility and learner boredom that characterised many early programmes of the linear variety. Such branching programmes now form the basis of much of computer-based learning. The modern interpretation of the term 'programmed learning' is very much broader and more flexible. Neither small steps are considered necessary nor immediate reinforcement. Although most programmes are still described as either 'linear' or 'branching'. Such programmes can now have a much wider range of structures than was ever the case in the past.

(I) Fundamental Principles of Branching Programme:

(a) Exposition:

Learner should perceive the whole phenomena exposed to him. He would learn better if the whole concept is presented to him.

(b) Diagnosis:

It refers in identifying the weakness of learner. After exposition it is assessed whether student could learn the concept or not. A multiple choice format is used to diagnose the weakness of the learner.

(c) Remediation:

Diagnosis provides the basis for remediation. Remedial instructions are provided on he wrong page. If a learner chooses wrong alternative, he has to move to wrong page where remedial instruction is provided to him to bet back to home page.

(II) Structure:

(a) Home page/ Content Frame:

It is this page on which the content unit or concept is presented as a frame and followed by multiple choice questions. Its purpose is to impart new knowledge or teaching. MCQ helps in assessing the attainment of the learners. The question aims to diagnose learning difficulties of the students.

Each home page includes the following:

- Repeating student response.
- Positive confirmation.
- New information.
- Question.
- Alternatives followed by frame numbers, where the student should go next.

(b) Wrong Page/ Remedial Frame:

When the learner chooses the wrong response, it indicates the weaknesses or difficulties of learning the concept. He would get further clarification and remediation for the concept so that he may understand the concept. He would be directed to go to the home page where he has to again choose the correct alternative.

Each remedial frame or wrong page includes the following:

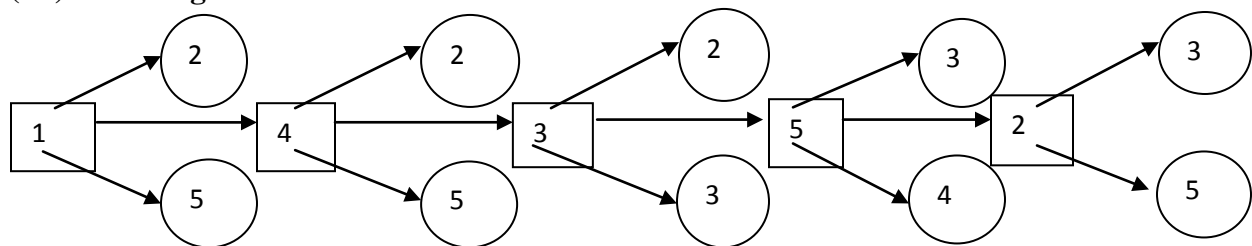
- Repeating student response.
- Negative confirmation.
- Reasons why he is wrong.
- Further explanation in simple language.

(III) Development:

The following steps are used in the development of a branching programme:

- (a) Selection of a topic
- (b) Assumptions about learners:
 - Entering behavior
 - Terminal behavior
- (c) Content analysis (preparing flow chart)
- (d) Preparing criterion test
- (e) Writing programme frames
- (f) Try out
- (g) Home assignment. Evaluation or validation of the programme.

(IV) Arrangement:



Example:

In this study we converted the chapter “Laws of Motion” from Science subject of CBSE class IX. The chapter was taught on the principles of Branching Instructions. A part of the chapter converted into framework is shown below:

Frame No. 01:

Q 1. What is required to change the state of motion of an object?

- (a) changes itself (see frame no. 02)
- (b) force(see frame no. 04)
- (c) climate change(see frame no. 05)

The problem of motion and its causes had puzzled scientist and philosophers. A ball.....its state of motion.

Frame no. 02:

Q 4 (a).Your answer is incorrect. Return to frame No. 04 and read the passage given on the frame carefully.

Q 3 (a).Your answer is incorrect. Return to frame No. 03 and read the passage given on the frame carefully.

Q 1 (a).Your answer is incorrect. Return to frame No. 01 and read the passage given on the frame carefully.

Q 5 (b).Your answer is correct now read the passage given on the frame carefully.

Q2: The person walks on the road because of:

- (a) a balanced force(see frame no. 03)
- (b) an unbalanced force (see frame no. 05)
- (c) an unbalanced force named friction
(see after the frame work in exercise)

If children push a box with a small force, the box does not move because of friction....the box starts moving.

Frame no. 03:

Q 5 (a).Your answer is incorrect. Return to frame No. 05 and read the passage given on the frame carefully.

Q 2 (a).Your answer is incorrect. Return to frame No. 02 and read the passage given on the frame carefully.

Q 4 (c).Your answer is correct now read the passage given on the frame carefully.

Q 3. Which form of force cannot change the state of an object:

- (a) unbalanced force(see frame no. 02)
- (b) balanced force(see frame no. 05)
- (c) force(see frame no. 04)

Two strings X and Y are tied.....balanced forces and do not change the state of rest or of motion of an object.

Frame no. 04:

Q3 (c). Your answer is incorrect. Return to frame No. 03 and read the passage given on the frame carefully.

Q1 (b). Your answer is correct now read the passage given below carefully.

Q5 (c). Your answer is incorrect. Return to frame No. 05 and read the passage given on the frame carefully.

Q4. A force can change:

- (a) shape of an object (see frame no. 02)
- (b) size of an object (see frame no. 05)
- (c) shape, size and velocity of an object (see frame no. 03)

Let us now ponder about.....that a force can change the shape and size of objects.

Frame no. 05:

Q4 (b). Your answer is incorrect. Return to frame No. 04 and read the passage given on the frame carefully.

Q1 (c). Your answer is incorrect. Return to frame No. 01 and read the passage given on the frame carefully.

Q3 (b). Your answer is correct now read the passage given on the frame carefully.

Q2 (b). Your answer is incorrect. Return to frame No. 02 and read the passage given in frame carefully.

Q5: Which form of force makes the object to move:

- (a) balanced force (see frame no. 03)
- (b) unbalanced force (see frame no. 02)
- (c) force (see frame no. 04)

Let us consider a situation in which two forces.....that unbalanced force acting on an object brings it in motion

(V) Home Assignment:

(i) A batsman hits a cricket ball which then rolls on a level ground. After covering a short distance, the ball comes to rest. The ball slows to a stop because:

- (a) The batsman did not hit the ball hard enough.
- (b) Velocity is proportional to the force exerted on the ball.
- (c) There is a force on the ball opposing the motion.
- (d) There is no unbalanced force on the ball, so the ball would want to come to rest.

(ii) Friction force can be reduced to a great extent by

- (a) Lubricating the two moving parts
- (b) Using ball bearing between two moving parts
- (c) Introducing a thin cushion of air maintained between two relatively moving surfaces
- (d) All the above

- (iii) Force exerted on a body can change its
 - (a) Kinetic energy
 - (b) Direction of motion
 - (c) Speed
 - (d) Momentum

Answer Q2: an unbalanced force named friction

From the above discussion we came to conclusion with following features and limitations of branching programming:

(VI) Features:

- (i) A student learns better if he is exposed with the whole concept.
- (ii) Material in a frame is larger. Much information is presented at a time.
- (iii) As it is in the form of MCQ- if a learner selects correct response, his response is confirmed and in case he selects wrong response then he is directed to route to the original frame in backward branching or to another in forward branching which explains as to why is he wrong.
- (iv) Here wrong response help in diagnosis and providing remediation for their weaknesses.
- (v) Highly individualized instruction as it is based on psychology of individual difference.
- (vi) Solves problem with high complexity.
- (vii) Material so presented is continuously.
- (viii) Teaching and remediation go side by side.

(VII) Limitations:

- (i) Learner may guess the correct response without understanding the subject matter of the frame.
- (ii) Infinite branching cannot be provided. It cannot cater to the needs of the individuals. It is very difficult to find out the total number of branches for each individual.
- (iii) Cost of preparation is high.
- (iv) Programmer decides the level on content, its frame and diagnostic questions.
- (v) Branching model can be used after sixth grade because small children do not follow its mechanism.
- (vi) It is very difficult to ask questions on the whole matter of the frames because the frames are too large and sometimes important subject matter is left.
- (vii) Guessing.
- (viii) Difficulty in arranging the branching sequences.
- (ix) Unfeasibility of infinite branching.
- (x) No sequence of pages

CONCLUSION

Programmed instruction may prove a big helping hand in all the tasks and aspects of education. With intelligent application of learning theory strategies and technology, the modern designer will find solutions to the learning requirements of the 21st century. In today's competitive world,

Programmed instruction may be required to establish and meet the objectives of understanding at cognitive level. On the other hand, the designer may be challenged to provide material that fosters an individual to find divergent approaches to problem solving. Basically originating from the psychology of learning and instruction, it has now been developed as one of the important aspects of instructional technology.

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